British Herbarium

Vol. III., No. 1.

THE

THIRTY-THIRD ANNUAL REPORT

OF THE

WATSON

Botanical Exchange Club

1916—1917.

Referees:

Rev. E. F. LINTON, M.A., F.L.S., Edmondsham Rectory, Salisbury.

Rev. E. S. MARSHALL, M.A., F.L.S., West Monkton Rectory, Taunton.

Rev. W. MOYLE ROGERS, F.L.S., Chetnole, Grosvenor Road, Bournemouth West; and

Rev. H. J. RIDDELSDELL, M.A., Wigginton Rectory, Banbury.

C. E. SALMON, F.L.S., Pilgrims' Way, Reigate.

Distributor for 1916—17:

H. STUART THOMPSON, F.L.S., 62 Elton Road, Bishopston, Bristol.

Hon. Treasurer:

SPENCER H. BICKHAM, F.L.S., Underdown, Ledbury.

Hon. Secretary and Editor:

GEORGE GOODE, M.A., Lyndhurst, De Freville Avenue, Cambridge.

CAMBRIDGE:
PRINTED BY J. PALMER, ALEXANDRA STREET
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Cordially yours
R. S. Standen

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REPORT FOR 1916—17.

The fact that over 2300 plants were contributed by twenty members in these busy and serious times is very satisfactory. Moreover, the specimens were very good, with few exceptions; and many interesting plants, including several novelties, were sent in. All the large "critical" genera, with the exception of *Hieracium*, were very sparingly represented; and there were remarkably few Monocotyledons, apart from some grasses and sedges. But the list comprises numerous interesting varieties and forms of other plants. Not a few of these appeared in Mr. Barton's large and neat parcel of about four hundred sheets

The greater use of small envelopes for seeds, flowers, etc., would be recommended. Some members send a liberal supply of dried mud with their specimens Although very easily removed from grasses, etc., when dry, it adds to the work of the distributor In several cases extraneous vegetable matter was adhering to the roots of plants.

The time has come to say a word on the packing of parcels, and upon the awkwardly large and untidy sheets a few members adopt. The waste of time in cutting down very large and untidy pieces of newspaper was alluded to by the late F. H. Davey in the Report for 1907—8, but it still has to be done. Although our Rules allow covers up to 18″ × 12″ (the width was exceeded last winter by several members), if herbarium sheets are 16″ × 10″, the size used at Kew and at certain Continental herbaria, no covers need exceed 17″ × 11″. Actually this work has confirmed my opinion that if both covers and boards are only slightly larger than the inner sheets the parcels travel better, and are

much more easily handled. Several parcels were packed too loosely, and others had irregular or too heavy boards: one pair weighed 2½ lb.! Millboards which are not too thick to bend easily are the best for protecting dried plants in.

The Club is much indebted to the following botanists for their help in examining and reporting upon doubtful plants: — Mr. E. G. Baker, Mr. W. Barclay, Mr. Arthur Bennett, Mr. C. Bucknall, Dr. Eric Drabble, Mrs Gregory, Mr. J. Groves, Mr. A. B. Jackson, Rev. E. F. Linton, Rev. E. S. Marshall, Mr. H. W. Pugsley, Rev. H. J. Riddelsdell, Rev. W. Moyle Rogers, Dr. E. J. Salisbury, Mr. C E. Salmon, Mr J. W. White, Mr. A. J. Wilmott and Major A. H. Wolley-Dod. Several of these gentlemen kindly devoted time and labour under difficult and unusual circumstances. It was with great regret that we heard of serious illness overtaking Mr. Linton, not long after he had begun examining the specimens sent to him, and that as a result he was unable to send us his usual valued criticisms. It was also impossible for Mr. Wilmott to find time at the Museum to write notes on some of the 'aliens' submitted to him. We welcome an active new member in Mr. E. B. Bishop, who sent a most interesting collection, but unfortunately the great majority were single sheets not for distribution. To Mr. Moyle Rogers we are again grateful for some *Rubi*, and to Mr. Bennett for sending some useful notes upon British plants for publication.

The contributors for the year were:—

	Sheets.		Sheets.
Mr. C. Bailey ...	... 12	Rev. E. S. Marshall	... 200
Mr. W. Barclay	... 17	Rev. W. M. Rogers	... 59
Mr. W. C. Barton	... 402	Miss Ida M. Roper	... 201
Mr. S. H. Biekham	... 157	Mr. C. E. Salmon	... 44
Mr. E. B. Bishop	... 88	Mr. W. R. Sherrin	... 21
Mr. J. Comber ...	... 276	Mr. H. S. Thompson	... 170
Mr. A. J. Crosfield	... 116	Rev. C. H. Waddell	.. 43
Mr. J E. Griffith	... 83	Mr. J. W. White	... 85
Rev. E. F. Linton	... 42		
Mr J. E. Little	.. 174	Total ...	...2317
Mr. H. C. Littlebury	... 69		
Dr. F. Long .	... 58		

H. STUART THOMPSON,

Distributor for the year 1916–17.

In the 29th Report, Mr. C. E. Salmon kindly pointed out that his specimens of *Cerastium pumilum* from Clifton Down,

gathered by me in May, 1889, and called *C. tetradrum* by Mr. Bennett (*see* 13th Report) were examined by Prof. Corbière and considered *pumilum*, as originally labelled. In fairness to Mr. Bennett, I think there may have been a mixture in that gathering twenty-eight years ago. The two often grow together, and I found such a mixture from Somerset only last year.—H. S. T.

RICHARD SPIERS STANDEN, F.L.S.

We deeply regret to have to record this year the death of Mr. R. S. Standen, for many years an active and enthusiastic member of the Club. From the time he joined, in 1893, Mr. Standen only once missed sending a parcel of plants for the annual distribution. These parcels constantly bore testimony to his intimate knowledge of our flora, and his care in selecting and drying the specimens. Charming as a correspondent, and most generous in bestowing his duplicate specimens where he thought they would be most useful, he will be greatly missed even by many who did not know him personally. His herbarium—a very extensive one—was presented to the Natural History Museum, South Kensington, in February 1916. After cremation at Woking, the remains were buried in Minstead Churchyard, New Forest, on August 28. We are greatly indebted to his friend, Mr. W. E. Nicholson, of Lewes, for the following short account of his life, and to the family for the photograph, taken about 1897, which we are permitted to reproduce.

G. GOODE,

Hon. Sec. and Editor.

Born at Oxford in 1835, Richard Spiers Standen was in his 82nd year when he passed peacefully away at Romsey on the 19th of July, 1917. His father, who took a great interest in the Shetlands, and who did much to further the woollen industry of the islands, died from a chill contracted while erecting a cairn there as a prominent landmark for ships at sea, when Mr. Standen was a young boy. His mother marrying again, he was brought up by guardians until he attained his majority. Shortly before this event his guardians arranged for him to have an extensive tour on the Continent, in the course of which he visited a large part of central and southern Europe, including Greece,

which was not very easy of access in those days. An account of these travels was given to his friends in a little book entitled "Continental Wayside Notes," privately printed in 1865. This book shows very clearly the effect of a well-planned tour on a young and receptive mind, and breathes an enjoyment of the adventures of travelling as well as a keen appreciation of all which came under his notice. This love of adventure characterised Mr. Standen throughout life, and, as his daughter has told me, he was never so happy as when travelling.

Shortly after returning from his travels, Mr. Standen entered the large and successful tailoring business carried on at 16 Waterloo Place and at Oxford, where the name is familiar to many generations of University men. The business prospered, and in the year 1880 Mr. Standen retired, and went to live at Alby Hill House, Aylsham, Norfolk. In 1883 he took his family abroad, and spent some years in Germany and Italy. He was always an active member of the English colony, and he organised, during his stay at Florence, a series of rambles into the neighbouring country, which were much enjoyed by those who attended them. In 1889 he returned to England, and settled first at Framingham Earl Hall, Norwich, afterwards at 67 Earls Court Square, London, then for a considerable period at Thorpe-le-Soken Hall, Colchester, after this at "Townlands," Lindfield, Sussex, and finally at Cupernham House, Romsey. Besides these changes there were numerous visits to the Continent of longer or shorter duration.

I first made the acquaintance of Mr. Standen in 1893, and it arose out of a visit which we had both recently made to Corsica for the purpose of studying the endemic butterflies of the island, in which he was much interested, as well as in European butterflies generally. From that time onwards I was a frequent guest of his at Thorpe-le Soken, Lindfield, and Romsey, and I enjoyed a holiday with him in southern Norway in 1898, and again in Majorca in 1905. Mr. Standen's ready aptitude for picking up languages, and thereby getting into touch with all whom he came across, greatly helped him to extract the maximum enjoyment from such travels, and made him a delightful companion. French, German and Italian he knew well, but if it were a question of Spanish or Norwegian, he was not slow in picking up sufficient for the purpose of some intercourse. Of even greater assistance to his enjoyment was the cheerful spirit in which he accepted anything which might turn up. If, as happened in Majorca, when he was past 70, he was violently thrown on to a heap of stones by a restive mule, or he had to fetch all the water which

he required, or make his bed in the scanty though hospitable accommodation of a Spanish monastery, Mr. Standen always saw the humorous side of the episode, even if he were the victim of it. Such a spirit is infectious, and silences any grumbling at discomforts on the part of others.

Besides his interest in botany and entomology, Mr. Standen was a very proficient painter in water colour, and exhibited for many years at the Dudley Gallery, where his pictures attracted a good deal of attention. He had a very happy way of rendering the atmosphere of his subject in a convincing manner.

Mr. Standen did not pose as a critical botanist, but he was a keen observer, and he took great pains in preparing his specimens for the Club. Until nearly the end he would enter with almost boyish zest into any new discovery or the exploration of new surroundings. Such people never grow old, and in spite of his years I could never bring myself to regard him as an old man.

Mr. Standen was a member of the Entomological Society, as well as of the Linnean Society. He leaves a widow, a son in the Indian Civil Service, and six daughters.

WM. EDW. NICHOLSON.

Clematis Vitalba L., var. ? Foreshore, Hayling Id., S. Hants., v.c. 11, Aug. 19, 1916.—E. B. Bishop. *C. Vitalba* L., var. *integrata* DC.—C.E.S.

Adonis annua L. Cornfield, Worth Matravers, Dorset, v.c. 9, June 29, 1916.—Ida M. Roper.

Ranunculus fluitans Lam., var. [*Bachii* (Wirtg.)]. In shallow water, Glencar Lough, Sligo, Aug. 20, 1913.—W. C. Barton. Very near that, but I think that it agrees better still with an authentic sheet of var. *cambricus* (Ar. Benn.) from Llyn Coron, Anglesey. In 1875 Syme referred Mr. Griffith's original specimens to var. *Bachii*.—E.S.M. Certainly not *R. cambricus* Ar. Benn.! I should have named this *R. peltatus* var. *pseudofluitans* Newb. The receptacle is hispid.—A.B. Perhaps a form of *R. fluitans*, but not, I should say, the var. *Bachii*. I have never seen satisfactory *R. fluitans* from Ireland, and notice that Mr. Praeger only records it from Co. Antrim. It would be interesting to know whether Mr. Barton's plant also occurs in the river which runs out of Glencar Lough, and if so, what it is like.—J.G.

R. Drouetii F. Schultz. Yate Lower Common, W. Glos., v.c. 34, June 6, 1916.—J. W. White. So I should name it.—E.S.M. Yes, the leaf segments are unusually stiff.—J.G.

R. ———. Mitcham Common, Surrey, v.c. 17, July, 1916.—W. R. Sherrin. I think a weak state of *R. heterophyllus*, var. *triphyllus*, a characteristic plant of this locality, but possibly a hybrid between that and one of the small-flowered species.—J.G.

R. lutarius Bouvet. Pond near Holmsley Station, S. Hants., v.c. 11, June 1916.—J. Comber. Yes.—J. G.

Fumaria officinalis L., var. *Wirtgeni* Hausskn. Chalkpit, Shalford, Surrey, v.c. 17, July 1916.—J. Comber. Correctly named.—H.W.P.

Barbarea vulgaris Ait., var. *arcuata* Fr. Orig. Side of drain ditch, Upton-on-Severn, Worcs., v.c. 37. Cult. Ledbury, July 31, 1916. (See 25th Report, 1906—9, p. 174, and Jl. Bot., 1916, p. 205).—S. H. Bickham. The distributor describes this and other plants sent by Mr. Bickham as "a superb lot of specimens, in some cases showing interesting effects of cultivation."—C.G.

Arabis adiata Br. Seed from sandy coast of Dog's Bay, W. Galway, Aug. 1913. Cult. Epsom, June 1916. The original plants were 3—7 inches high, with rosette leaves ¾ inch; cultivated plants grew to 14 inches high, with rosette leaves 2½ inches.—W. C. Barton. The rather young specimens sent me show the abundant stem-leaves and the ± entire root-leaves very satisfactorily. Perhaps, another season, Mr. Barton could complete his excellent series by sending examples in *ripe* fruit.—C.E.S.

A. hirsuta Scop., var. *glabrata* Syme. Orig. near Plumpton, Sussex, 1913. Cult. Ledbury, May 27, 1916.—S. H. Bickham. It is most satisfactory to see the varietal character so well maintained in cultivation.—E.S.M. Yes, the glabrous plant that Syme (1863) called *glabrata*, but it is probably identical with the plant similarly named by Hartman in 1852.—C.E.S.

Cardamine pratensis L., var. [*palustris* Peterm., f.] Arminghall Wood, nr. Norwich, Norfolk, v.c. 27, April 1915.—F. Long. Is not this rather the variety *dentata* Schultz?—C.E.S. I agree with Mr. Salmon.—H.S.T.

Erophila ———. Wall of West Mill, Hitchin, Herts., v.c. 20, April 21 and May 24, 1916.—H. C. Littlebury. Under *E. verna* (*vulgaris*).—E.S.M.

Sisymbrium officinale Scop., var. *leiocarpum* DC. Waste ground and roadside, Freshwater, I. of Wight, v.c. 10, Aug. 4, 1916. Not recorded for I. of Wight in Townsend's "Fl. Hants." 1904. The plant differs from type by the more bushy growth, in addition to the characters mentioned in B.E.C. Report, 1913, p. 451. —W. C. Barton.

Brassica Rapa L., ? var *Briggsii* Wats. Gravelly field by shore, Warrenpoint, Co. Down, July 1916.—C. H. Waddell. I cannot trace a proper description of var *Briggsii*. The distinguishing character given by Watson for Briggs' plant is: basal leaves dark green, not glaucous, but that was only to distinguish it from the Thames-side plant. The specimen sent has no basal leaves, the others seem quite glaucous.—A.J.W.

Reseda alba L. Waste ground, cliffs, Bournemouth, S. Hants., v.c. 11, Aug. 8, 1916.—H. C. Littlebury. I am doubtful if our *Reseda alba* is identical with the very fleshy and more shrubby *R. suffruticulosa* L. of Mediterranean sands, as generally supposed. Even on the Bristol Channel, where it is naturalised near the sea, I have not seen quite similar plants to those in the south, where it is native. J. D. Hooker followed Bentham in taking the name of *alba* for the British plant, "which most authors agree in considering the same with *fruticulosa* and *suffruticulosa*."—H.S.T.

Helianthemum Chamaecistus × *polifolium*. Purn Hill, Bleadon, N. Somerset, v.c 6, May 20 and 23, 1916. With the parents. First discovered by the present contributor in July 1888, since when it, and *polifolium*, have greatly extended in range. See "Gard. Chron." Nov. 11, 1916.—H. S. Thompson.

Viola odorata L., f. *praecox* Greg. Tickenham Hill, N. Somerset, v.c. 6, Jan. 12 and July 6, 1916.—Ida M. Roper. Correct —E.S.M.

V. odorata L., forma *imberbis* Greg. (*V. imberbis* Leight.) Hilly pasture, Compton Dando, N. Somerset, v.c. 6, Apr. 5 and July 6, 1916.—Ida M. Roper. Correct.—E.S.G.

V. arvensis Murr., ? var. *contiana* (Drabble). Cornfield near Ashurst, Kent, v.c. 16, May 28, 1916.—E. B. Bishop. Yes, *contiana*; very interesting, as this is decidedly a rare plant. I only have it from Sevenoaks and Cirencester.—E.D.

V. arvensis Murr., ? var. *agrestis* (Jord.). Near High Wycombe, Bucks., v.c. 24, Sept. 17, 1916.—Coll. L. J. Tremayne. Comm. E. B. Bishop. This seems to be *V. monticola* Jord.—E.D.

V. arvensis Murr., var. *agrestis* (Jord.), f. *segetalis* (Jord.). Garden weed. Godalming, Surrey, Sept. 23, 1916.—Coll. Mrs. C. L. Wilde. Comm. E. B. Bishop. Yes, *segetalis*. It has much of the habit of *agrestis*, but the stipules are quite those of *segetalis*.—E.D.

V. arvensis Murr., ? var. *Déséglisei* (Jord.). (1) Garden weed, Godalming, Surrey, Sept. 23, 1916.—Coll. Mrs. C. L. Wilde. Comm. E. B. Bishop. Correct.—E.D. (2) Arable field, Scotsland, Hascombe, Surrey, v.c. 17, Sept. 24, 1916.—E. B. Bishop. The plants on my sheet are rather large *V. arvatica* Jord.—E.D.

V. arvensis Murr., [? var. *ruralis* (Corb.), sub-var. *glabra* Drabble]. Arable field, off St. Petersburgh Road, Guildford, v.c. 17, April 28, 1916.—Coll. R. M. Kennedy. Comm. E. B. Bishop. This is *V. variata* Jord., var. *sulphurea*, perhaps rather small-flowered, but unmistakable.—E.D.

V. saxatilis Schmidt, [var. *lepida* (Jord.) ?]. Church Stretton, Salop, v.c. 40, July 25, 1916.—Coll. W. Simpson. Comm. E. B. Bishop. There is no sign of the perennial underground growth, so characteristic of *lepida*. This is *V. Lejeunei* Jord.—E.D.

Lychnis dioica L., with pale pink flowers, turning darker and bluer on drying: ? hybrid. Though growing with *L. alba* in a field of 'seeds' near Radstock, N. Somerset, v.c. 6, June 1916, Mr. Marshall says: "I do not see clear evidence of the *alba* parent, and fancy that it is a colour form of *L. diurna*; but I am not sure about it: it is full young."—H. S. Thompson. "Perhaps so critical a point is best settled from fresh specimens."—J. W. W. *in litt.*

Stellaria Dilleniana Moench (1777) = *S. palustris* Retz. (1795). Foliage *green*. Marshy side of railway near Edington Rd. Station, N. Somerset, v.c. 6, July 6, 1916 (*see* F. N. Williams in "Journ. Bot." 1910, p. 223, and Moss and Druce in "Inter. Phytogeograph. Exc. in Brit. Isles," "New Phyt." reprint, 1913, pp. 25, 122).—H. S. Thompson. "*S. glauca* With. seems to differ only in its glaucous foliage."—E.S.M. *in litt.*

Arenaria serpyllifolia L., var. *viscidula* Roth, (= *glutinosa* Koch). Ref. No. 4550. Plentiful among the sandhills about Burnham and Berrow, N. Somerset, v.c. 6, June 8, 1916.—Edward S. Marshall. Yes, but it is often much more glandular than the two examples sent me.—C.E.S.

A. serpyllifolia L., ?var. [*macrocarpa* Lloyd]. Farn Hill, Bleadon, N. Somerset, v.c. 6, May 1916.—H. S. Thompson. No; this is good var. *viscidula* Roth (*glutin sa* Koch), the upper part of the plants being densely glandular.—E.S.M.

A. serpyllifolia L., ?var. Sandy bank by sea, Omeath, Co. Louth, July 1916.—C. H. Waddell. *A. leptoclados* Guss.—E.S.M. The common state in Britain—*i.e. a. scabra* Fenzl.—C.E.S. The specimen I kept is the scabrid form of *A. serpyllifolia*.—E.S.T.

Sagina maritima Geo. Don *sen.* (*see* "Jl. Bot." 1917, p. 23). Uphill Wharf, N. Somerset, v.c. 6, June 1916. Varying in height from 1–6 inches, according to situation. Jordan's var. or form *debilis*, with prostrate stems radiating from the root, has been noted from this coast, and specimens of Mr. Bickham's from near Weston-super-Mare passed both Clubs as *debilis*. They resemble some of this gathering; but I should consider Jordan's plant merely a form, not worthy of varietal rank.—H. S. Thompson. This erect form of *S. maritima* is not like the "Eng. Bot." t. 2195, and answers better to the description of *S. stricta* Fr.—indeed it is very like examples from Sussex so named for me, some years ago, by Prof. Corbière. Gren. & Godr. ("Fl. Fr." I. 246, 1848) remark that this plant differs from *maritima* by the absence of petals, and that it has much more the habit of *S. apetala*. The latter character is well shown in my examples of Mr. Thompson's gathering, but as to the former feature, Smith (E. B. 2195) remarks, under *maritima*, "Petals minute, often altogether wanting."—C.E.S.

S. apetala Ard. On and below a wall, Worlington, W. Suffolk, v.c. 26, June 12, 1916. Pedicels and sepals glandular; stem pubescent, eglandular.—W. C. Barton. This is evidently *a. barbata* Fenzl.—C.E.S.

Scleranthus annuus L., var. *biennis* (Reuter). Puttenham Heath, Surrey, v.c. 17, May 7, 1916.—E. B. Bishop. Yes; var. *hibernus* Reichb., "Fl. Exc. Germ.", p. 568 (1832) = var. *biennis* Fries, "Fl. Scanica," p. 118 (1835). Very characteristic of the Lower Greensand heaths in S.W. Surrey. The Rev. E. F. Linton has suggested that it is the original form of the species.—E.S.M. Yes; a frequent form on our sandy commons. This variety is said by Corbière ("Fl. Norm.") to equal the var. *collinus* of Brébisson, who, in the later editions of his "Fl. Norm." uses the name var. *hibernus* Reichb. for this plant. I think that var. *caespitosus* Neilr. is probably a condensed state of *biennis*.—C.E.S.

Hypericum [*maculatum* Crantz], form with sepals not reflexed. Lane leading from Shackleford to Puttenham, Surrey, v.c. 17, July 23, 1916.—E. B. Bishop. This is *H. dubium* Leers, var. *crosum* Schinz (the common form in Britain).—C.E.S.

Geranium Robertianum L., var. *molestum* (Jord.), (*see* Davey's "Fl of Cornwall"). Lane-side, Padstow, W. Cornwall, v.c. 1, May 25, 1916.—J. W. White. A beautiful series.—H.S.T.

Erodium cicutarium L'Hérit., var. *triviale* Jord. Barrow Hill, Newton St. Loe, N. Somerset, v.c. 6, June 7, 1916. Petals not spotted.—Ida M. Roper. A robust state, corresponding to *genuinum* Rouy; and is, I believe, the most common form of the aggregate both in this country and in France.—J.W.W. This is a form of *Erodium triviale* Jord. We have compared it with Jordan's type in Herb. Mus. Brit. It is more glandular, but has the long rostrum to the fruit, the non-spotted flowers, the distinct ridge round the foveola, and the acute segments of the leaves, which are distinguishing features of this species. It would greatly facilitate the determination of plants of this genus if members would kindly note: (*a*) colour of stigmas, anthers, pollen and petals; (*b*) are petals equal or unequal, and spotted or not spotted, also the diameter of expanded flower should be noted.—E.G.B. & C.E.S.

Medicago lupulina L., var. *eriocarpa* Rouy. Railway bank, Dullingham, Cambs., v.c. 29, Aug. 14, 1916.—A. J. Crosfield. In good fruit, but the pods are so sparsely hairy that the character is not easily recognised. Not a satisfactory "variety" to my mind.—J.W.W. The pods show some simple hairs upon them, so the plant must be labelled, I believe, as Mr. Crosfield suggests. Rouy, however, makes it a *sub-var.* only. It is often better marked than in these examples.—C.E.S.

M. lupulina L., pedicellate form with falcate pods. Littleton, near Guildford, Surrey, v.c. 17, June 24, 1916.—Coll. R. M. Kennedy. Comm. E. B. Bishop. This is evidently the plant to which Mr. White refers in "Fl. Bristol," p. 229. It may very well be a state of var. *unguiculata* Sér., which is apparently a teratological growth rather than a true variety.—C.E.S.

Trifolium squamosum L. (= *T. maritimum* Hudson). Sub-maritime pasture by R. Avon, below Bristol, W. Glos., v.c. 34, July 11, 1916, and Sea-bank by roadside at Uphill, N. Somerset, v.c. 6, July 28, 1916. This plant does not grow in "salt marshes," at least in the west of England, but in sub-maritime

pasture land, the habitat given in White's "Flora of Bristol." J. D. Hooker says "salt marshes and meadows" ("Student's Flora"); Hooker & Arnott (1850) gave "salt marshes" as the habitat; and even Babington gave "muddy salt marshes." In Cornwall, Davey said it grew on "Roadsides and waste places near shipping. Very rare."—H. S. Thompson.

T. repens L., var. *Townsendii* Bab. This occurred, in 1903, in Moccas Park, near Hereford, whence a root was brought to Underdown, Ledbury, where it flourishes and retains its colour. July 20, 1916.—S. H. Bickham. Mr. N. E. Brown, in the Supplement to "English Botany," ed. 3, gives var. *rubescens* Séringe as an earlier name.—E.S.M.

Lotus corniculatus L. Worle Hill, Weston-super-Mare, N. Somerset, v.c. 6, June 13, 1916. Large spreading clumps, the foliage small and pale green, distinct in appearance from type, with which it grows. A depauperate form or state is mentioned in "Fl. Derbysh." (1903), p. 107.—Ida M. Roper. Under the type.—E.S.M. & J.W.W.

L. uliginosus Schkuhr., var. *glabriusculus* (Bab.). Freshwater Gate Marsh, I. of Wight, v.c. 10, Sept. 16, 1916. (Cp. B.E.C. Report, 1914, p. 136). Further study of this plant inclines me to think it more than a form due to situation. It was in great abundance in the marsh and constant in character. A mile away on wet ground in Freshwater Marsh the hairy form (var. *villosus*) was growing, and there I could not find the less hairy plant. Not mentioned in "Fl. Hants." 1904. (*See* B.E.C. Report, 1914, p. 136.)—W. C. Barton. Very well marked, I should say.—C.E.S.

Vicia lithynica L. Station-yard, Portishead, N. Somerset, v.c. 6, June 2, 1916.—Ida M. Roper. An alien there.—H.S.T.

Rubus latifolius Bab. Near Ty Croes Station, Anglesey, v.c. 52, July 25, 1916.—J. E. Griffith. Undoubtedly right, I should say. I once gathered it in the same locality. I think, however, that the panicles are too unequal; some might with advantage be eliminated before distribution. Most of the gathering, however, is beautifully representative.—H.J.R. I agree. Some (a few) of the panicles are so poorly developed that the 23 sheets might with advantage be partly re-arranged and reduced to 15 or 20. Dr. Focke is answerable for the naming of this Anglesey plant. While accepting his determination as probably correct, I

cannot but admit that some of Babington's *latifolius*" from other counties may not be *identical*. Babington does not seem to have known of its occurrence in Anglesey.—W.M.R.

R. rhamnifolius × *rusticanus*. East Lulworth to West Creech, Dorset, v.c. 9, Aug. 11, 1916.—Coll. Mary A. Rogers. Comm. W. Moyle Rogers.

R. [*macrophyllus* Wh. & N.]. Wood, Failand, near Bristol, N. Somerset, v.c. 6, July 7, 1916.—Ida M. Roper. Apparently quite characteristic *R. dumetorum* Wh. & N., var. *diversifolius*, which Mr. White reports as frequent in N. Somerset.—W.M.R.

R. latifolius Muell. & Wirtg., var. *mollissimus* (Rogers). Lane, Rempstone Heath to Corfe Castle, Dorset, v.c. 9, Aug. 17, 1916. —Coll. L. Cumming. Comm. W. Moyle Rogers.

R. Boræanus Genev., white-flowered form. East Common, Corfe Castle, Dorset, v.c. 9, Aug. 8 & 12, 1916.—Coll. L. Cumming. Comm. W. Moyle Rogers. In most respects agrees remarkably well with Genevier's description ("Ess. Mon." No. 102) of his *R. Boræanus*, of which it is, I believe, a limestone form, corresponding to the white-flowered form of *R. leucostachys* Sm. Locally abundant on the two Commons to the south of Corfe Castle, but otherwise, so far as known to me, unrecorded from Dorset, and thus far found only by Mr. Cumming, who brought me these specimens freshly collected on Aug. 8 & 12, 1916.—W.M.R.

R. Borreri Bell Salt. Near Corfe Castle, Dorset, v.c. 9, Aug. 10—20, 1916.—Coll. L. Cumming. Comm. W. Moyle Rogers. In Mr. Cumming's sheets the panicles are out of condition and somewhat uncharacteristic; but I believe he is right in putting them with the stem-pieces to *R. Borreri* Bell Salt.—W.M.R.

R. mutabilis Genev. Near Lynch, W. Sussex, v.c. 13, Aug. 5, 1914.—Coll. F. A. Rogers. Comm. W. Moyle Rogers.

R. fuscus Wh. & N., var. *nutans* Rogers. Near the Church, Arne, Dorset, v.c. 9, Aug. 19 & 21, 1916.—Coll. Mary A. Rogers. Comm. W. Moyle Rogers. This remarkable bramble is abundant along the New Forest border, and has been seen by me as far west in Hants. as Hinton Admiral, near Christchurch; but I have never seen it in Dorset, and know no other specimen from that county except one in the Dorchester Museum from Alderholt in the extreme north-east corner and close to the Hants. boundary.—W.M.R.

R. [illegible] hybrid? Lyncomb Hill, Sandford, N. Somerset, v.c. 6, [illegible]16.—Ida M. Roper. Barrenness is, of course, [illegible] great sign of hybridity in this genus; still, apart from that, I see nothing but *R. cæsius* in this.—E.S.M.

Potentilla [*grandiflora* L.]. A native of the Alps and Pyrenees Seedlings appeared in a rock garden, introduced with other rock plants, Grey Abbey, Co Down, 1916.—C. H. Waddell. Probably a tall shade-grown form of *P. aurea*.—H.S.T. "Drawn up in a damp, shady locality."—C.H.W. *in litt.* I think this is probably *P. intermedia* L.; it is not quite *P. aurea*. Certainly somewhat like large specimens of *P. chrysantha*, but this group is difficult, even when the exact locality is known.—A.J.W.

Rosa dumetorum Thuill., var. *urbica* (Léman). Cadbury Hill, Yatton, N. Somerset, v.c. 6, June 20 & Nov. 6, 1916.—Ida M. Roper. I think this is correctly named.—W.B. Too little hairy for typical *R. urbica*. I should label it *R. trichoneura* Rip.—A.H.W.-D.

R. stylosa Desv., var. Lane, Wrington Common, N. Somerset, v.c. 6, July 12 & Sept. 23, 1916. Flowers pale pink.—Ida M. Roper. Yes; this belongs to the group *Systyla* Bast.—W.B A form of *R. systyla* Bast., peculiar in its subglobose fruit and its much pinnate sepals. The former character would justify its being labelled var. *lanceolata* Lindl., but I only know that by its brief description.—A.H.W.-D.

R. stylosa Desv., [var. *virginea* (Rip.)]. By stream, Keynsham, N. Somerset, v.c. 6, Sept. 2, 1916.—Ida M. Roper. A very peculiar rose, but not *R. virginea*, which is quite glabrous. I think the shape and spacing of its leaflets, also the prickles, point to its being one of the *stylosa* and not a *dumetorum* form, but I cannot name it. In some respects it recalls var. *evanida* Christ, and for the present I can only place it somewhere near that variety and *R. virginea* Rip. Some of the leaflets on the flowering shoots are quite biserrate.—A.H.W.-D. If this is a *stylosa* form, it is not var. *virginea* Rip., as it is quite distinctly hairy on the mid-rib. I do not, however, think it a *stylosa* form, taking its characters into account. It seems to me to be a variety of *R. dumetorum* Thuill., hairy only on the mid-rib, and with irregular slightly compound serration, and glabrescent or thinly hairy styles. It might be put under *R. hemitricha* Rip., but at best is only a slight variation of *R. dumetorum* Thuill. of the *Urbica* group.—W.B.

Pyrus Aria Ehrh.? Ref. No. 2222. Top of Nightingale Valley, by roadside, Leigh Woods, N. Somerset, v.c. 6, June 27, 1916.—H. S. Thompson. An *Aria* form, near *Sorbus incisa* Reichb., and perhaps coming under that.—E.S.M.

P. Aria Ehrh., [var. *rupicola* Syme?]. Ref. No. 2223. Callow Rocks, Mendip, N. Somerset, v.c. 6, June 27, 1916.—H. S. Thompson. No: *rupicola* has narrow cuneate-based leaves. This is our usual English form of *Aria*.—E.S.M. I should say not *rupicola*, which has fewer lateral veins to leaves, which are much more narrowed below, etc.—C.E.S.

Saxifraga [*grœnlandica* L., forma *vulgaris*]. Cwm Idwal, Carnarvonshire, v.c. 49, July 1916.—J. E. Griffith. Quite unlike both the Brandon plant and the Cwm Idwal *S. rosacea* or *decipiens* (*S. palmata* Smith!). I believe it to be a small state of *S. platypetala* Smith, which Mr. J. G. Baker has referred to *S. sponhemica*. —E.S.M.

S. [*grœnlandica* L., = *decipiens* Ehrh., forma *vulgaris*]. Root from Brandon Mountain, Co. Kerry, Ireland. Cult. Bangor, July 1916.—J. E. Griffith. This is typical *S. Sternbergii* Willd., and very like my wild specimens from near the summit of Brandon Mountain, which, when cultivated and luxuriant, just match Sternberg's figure of his original garden-grown plant. The foliage is bright green, and more or less glabrate, whereas *S. rosacea* Moench (*S. decipiens* Ehrhart, *Exsiccata*, No. 5, in Herb. Smith!—Ehrhart never described the species) is densely grey-pubescent. *S. Sternbergii* flowers considerably later, and the tufts are much more compact. *S. grœnlandica* L., of which there is no specimen in the Linnean Herbarium, and about which Linné seems to have known very little, was described by him as follows in the "Species Plantarum," ed. I. p. 404: "Saxifraga foliis caulinis palmato-multifidis sparsis: laciniis acutis, caule erecto." It was based on the "Saxifraga tridactylites grœnlandica, caudiculis [misquoted by Linné as 'caulibus'] valde foliosis" of Dillenius, "Hortus Elthamensis," t. CCLIII, f. 329 (pp. 337—8). This represents a plant quite unlike *S. rosacea* (*decipiens*), and much nearer to the true *S. caespitosa* L. Dillenius gives a full description and account. I have seen a specimen in the Sherardian Herbarium at Oxford, which is mentioned by him as containing it. This is in poor condition, but likewise differs greatly from *S. rosacea*. On these evidence, which is too long to give in detail here, I do not believe that some Scandinavian and British botanists are right in replacing the name *S. rosacea* (*decipiens*) by *S. grœnlandica* L.—E.S.M

S. groenlandica L., var. nov. *Griffithii* (Guernonprez). Root from Cwm Idwal, Carnarvonshire. Cult. Bangor, July 1916.—J. E. Griffith. The two small specimens sent to me have no barren shoots, but they are certainly the same as a very well-marked Saxifrage which I gathered in Cwm Idwal (it apparently hybridizes with *S. hypnoides* L., as well as on and near Snowdon in 1912. Mr. F. N. Williams identifies this as the Welsh plant named *S. leptophylla* Pers. by D. Don ("Trans. Linn. Soc. 1822," pp. 150–1): but he doubts the correctness of the identification, and proposes to call it *S. arvonica*. Persoon's description, in his "Synopsis," I. p. 490, is very brief and vague; and I have seen no authentic specimen.—E.S.M.

S. rosacea Moench (*decipiens* Ehrh.). Ref. No. 4031. Root from Clare Island, W. Mayo (R. Lloyd Praeger). Cult. garden, West Monkton, May 16 & 29, 1916. It differs slightly from the Welsh plant (*S. palmata* Sm.), but both come under *S. decipiens* Ehrh. *Exsiccata*, No. 5 (Herb. Smith!) quoted by Moench in publishing his *S. rosacea*. Ehrhart did not describe *S. decipiens*, so his name is not valid.—E. S. Marshall.

S. hypnoides L., forma. Ref. No. 4033. Root from limestone, West Ireland (probably from Black Head, Co. Clare, as I have a very similar wild specimen from there); received from Mr. E. W. Hunnybun, to whom it was sent by Mr. R. Lloyd Praeger. Grown at West Monkton Rectory, May 16 & 29, 1916. Much stronger than the typical plant from Cheddar, cultivated under the same conditions. Axillary leaf-buds absent, or quite rudimentary.—Edward S. Marshall. For further information on all these difficult plants, reference may be made to Mr. Marshall's "Critical Notes on some Britannic Saxifrages," in "Journ. Bot." June 1917.—H.S.T.

Drosera anglica × *rotundifolia* (*D. obovata* Mert. & Koch). Ref. No 4244. With the parents, to the north-west of Loch Laggan, v.c. 97, W. Inverness, at about 1200 feet, July 31, 1916.—Edward S. Marshall.

D. longifolia L., f. *subcaulescens* Melvill. Hartland Moor, Corfe, Dorset, v.c. 9, June 27, 1916.—Ida M. Roper. The specimens sent me may come under the *forma*, but are not so well marked as some that occur in the bogs of E. Dorset.—J.W.W. Yes; but this appears to be merely a state of growth.—E.S.M.

Callitriche obtusangula Le Gall. Mildenhall, W. Suffolk, v.c. 26, June 13, 1916.—W. C. Barton. This seems correctly named,

whereas the plant recorded under this name, from same locality, in Hind's "Fl. Suff." 311 (1889) proved, upon examination, to be *C. hamulata*.—C.E.S. My herbarium-set is away on loan, so that comparison is impossible. The rosettes are unusually large for this species—when fresh, their metallic green marks it off at a glance—but look right. None of the fruit is quite mature; but the persistent styles are erect, and it seems to be correctly named.—E.S.M. Correct. I think this is a new record for W. Suffolk. I have gathered it in E. Suffolk.—A.B.

Peplis Portula L. Ref. No. 219. Wet mud in pond on links, Llandrindod Wells, Radnorsh., v.c. 43, Aug. 15, 1916. A mile from the stations where the var. was gathered. In ponds and ditches on this side of the hill I could find nothing but plants similar to these.—W. C. Barton.

P. Portula L., var. *longidentata*. Boiss. et Reut. (1) Ref. No. 220 A. Drying mud of pond and ditch in a wood (alt. 800 feet), Llandrindod Wells, Radnorsh., v.c. 43, Aug. 15, 1916. (2) Ref. No. 220 B. Dry mud in ditch on open hillside (alt. 1000 feet), Llandrindod Wells, Radnorsh., v.c. 43, Aug. 15, 1916. It should be noted that 220 B was growing in a situation quite as exposed as 219, and on drier mud, so that the development of the calyx can scarcely be due to situation, and that there was no admixture of forms.—W. C. Barton. According to Rouy and Camus; "Fl. de France," VIII. p. 167, Boissier and Reuter made this a species; J. Gay is the varietal authority. The calyx-characters are right, but the petals are said to be "orangés," whereas these are pink, in Mr. Barton's gatherings.—E.S.M. This *P. longidentata* of Gay was, in 1878, given by Nyman in his "Consp. Fl. Europ." as native of Spain and Portugal only; in the later edn. France was added. Nyman makes it a sub-species, but the difference seems hardly enough for that. Gay's original specimens are in the Kew Herbarium. I have the same form from the Isle of Colonsay, v.c. 102, gathered by M. McNeil, who says it "covers a sun-dried pool near Strand." Another approaching it from Witley, Surrey, 1888 (Rev. E. S. Marshall).—A.B. In the Report of the Phytogeographical Excursion in the Brit. Isles ("New Phytol." 1911), Mr. G. C. Druce published var. *dentata* nov. var. from Co. Kerry and Cornwall (first seen in 1875), which "differs from the type in having much longer teeth to the calyx, and may be described 'Dentibus calycis capsula (1 mm. vel ultra) longioribus.' It forms a passage to the Mediterranean and Western variety *longidentata* J. Gay, and is especially interesting as affording another link with the Iberian flora." Granted

this is most interesting, but surely the giving of names to all such "passages" can only lead to chaos. The writer's own specimens of *Peplis* confirm this tendency for the calyx-teeth to become longer in the West. From near Penzance (1888) he has *longidentata*, together with what Mr. Druce would call *dentata*; the same two forms from a stream on Quantock (West Somerset); "*dentata*" from two places in Warwickshire; and the type only from Skipwith Common, E. Yorks.—H.S.T.

Epilobium hirsutum L. (flore albido). Ref. No. 4362. Near Somerton, N. Somerset, v.c. 6, Aug. 19, 1916.—E. S. Marshall.

Chærophyllum aureum L. Banks of the Teith, Callander, W. Perth, v.c. 87, July 19, 1916.—Coll. Prebendary R. J. Burdon. Comm. J. E. Little.

Crithmum maritimum L. Thorney I., W. Sussex, v.c. 13, Oct. 11, 1916. This is recorded in Arnold's "Flora of Sussex" for Pilsey, the island sandspit off the south point of Thorney Isle, but not for Thorney Island itself.—J. E. Little.

Peucedanum sativum Benth. & Hook. Variety with dissected leaves. Norton Common, Letchworth, Herts., v.c. 20, July 4 and Sept. 1916.—Coll. W. P. Westell, F.L.S. Mr. Westell writes regarding this: "My attention was first attracted to this interesting variety of *Peucedanum* in June 1915, when about half a score of plants, confined to a radius of a few square yards, came under my observation on Norton Common, Letchworth. Early in the Spring of 1916 I again visited the station, and found, to my delight, that several plants were already showing well; the deeply-cut, parsley-like, leaves seeming to be more pronounced than ever. A search elsewhere was also rewarded with the discovery of, perhaps, twenty more plants. These, I am inclined to think, I had overlooked in 1915. On July 4th, 1916, I gathered a number of the best specimens, and again in September I procured a further collection of leaves from individual plants, and it is from these July and September gatherings that the specimens submitted have been made up. I would point out that each set of specimens exhibited is from one individual plant, and that I discovered individual plants of *sativum*, bearing leaves in a bewildering variety of form, from the type *P. sativum* to the extreme forms I have pleasure in submitting."—J. E. Little. This looks very interesting, and I have no similar plants in my herbarium with which to match it. It is surely a very uncommon state. I see there is a variety *bipinnatifolia* Babey, but I do not know it.

"Eng. Bot." t. 536, shows our normal plant, which is described as having "leaflets from 5 to 9, sharply serrated and somewhat cut, downy beneath; the odd one in three lobes." Mr. Westell's plant is a good deal removed from this, as far as one can see from the detached leaves sent, and I hope he will collect complete examples in flower and fruit for further study.—C.E.S.

Coriandrum sativum L. (1) On City refuse, Bristol, W. Glos., v.c. 34, July 13, 1916.—Ida M. Roper. (2) Mitcham Common, Surrey, v.c. 17, July 1916.—W. R. Sherrin. (3) Near Stringer's Common, Surrey, v.c. 17, July 8, 1916.—Coll. R. M. Kennedy. Comm. E. B. Bishop. Yes; fragile specimens.—H.S.T.

Caucalis nodosa Scop., var. *pedunculata* Rouy. Icknield Way, near Ickleford, Hitchin, Herts., v.c. 20, July 22, 1916.—H. C. Littlebury. This agrees very well with the description of *Torilis nodosa* Gaertn., var. *pedunculata* Rouy & Camus, "Fl. de France," VII., p. 251 (1901). I have never seen this before.—E.S.M. Also confirmed by J.W.W. & C.E.S.

Cornus suecica L. Head of Glen Shirra, Laggan, E. Inverness, v.c. 96, July 14, 1916.—Edward S. Marshall.

Galium Mollugo L., ? var. *insubricum* (Gaud.). Pewley Hill, Guildford, Surrey, v.c. 17, Sept. 20, 1916.—Coll. R. M. Kennedy. Comm. E. B. Bishop. Not *insubricum*, which has large, roundish leaflets; here the leaves are very small and numerous. I do not know of any special name for this.—E.S.M.

G. palustre L., ? var. *lanceolatum* Uechtr. (= *elongatum* Syme). (1) Riverside, near Broadwater, Godalming, Surrey, v.c. 17, July 9, 1916.—E. B. Bishop. I believe so.—E.S.M. (2) Watermeads, St. Cross, Winchester, S. Hants., v.c. 11, Aug. 1916.—Coll. J. O. Comber. Comm. J. Comber. This is a locality given in Townsend's "Fl. of Hants." for the 'var. *elongatum*,' but these plants have rough stems.—J. Comber. Perhaps it may come under this, in spite of the scabrid stems, but not extreme.—E.S.M. This must be, I think, just *palustre*. In both *lanceolatum* and *elongatum* the leaves are of a different shape and longer, etc. —C.E.S.

Filago apiculata G. E. Sm. (1) Sandy field near Shackleford, Surrey, v.c. 17, July 8, 1916.—C. E. Salmon. (2) Edge of field near Shackleford, Godalming, Surrey, v.c. 17, July 15, 1916. These plants were cultivated in my garden from wild seedlings, as I was afraid that the ground would be disturbed and the

plants lost. They do not seem to me to be typical *F. apiculata*, apart from the colour of phyllaries (which have only the faintest trace of purple tint), but I cannot make them *germanica* or *spathulata*.—E. B Bishop. I have no doubt that this is the same as my plant.—C.E.S.

Senecio vulgaris L., f. *rubricaulis* Trow. Field, Cambridge, Cambs., v.c. 29, Sept. 20, 1916.—Albert J. Crosfield.

Arctium nemorosum Lej., var. *subtomentosum* Ar. Bennett. Roadside near Bodorgan Station, Anglesey, v.c. 52, Aug. 10, 1916.—J. E. Griffith. Far too young to name with certainty. I should have named it *A. minus*.—A.B. Mr. Griffith sent this to the Bot. Ex. Club Brit. Isles in 1893, and the specimens were then, as in the present instance, too immature for determination. It is much to be hoped that Mr. Griffith will gather it another season in mature condition, as it looks a very interesting plant. Mr. Beeby, to whom I showed an 1893 example, *thought* it to be a woolly-headed form of *minus*, but wished to see older specimens.—C.E.S. Gathered much too early; but it is probably *A. vulgare* Evans, forma *subtomentosum* Evans (*A. intermedium*, var. *subtomentosum* Ar. Bennett). *See* A. H. Evans in "Journ. Bot.", 1913, pp. 113—119.—E.S.M.

Carduus pycnocephalus L. Roadside bank, Acle, E. Norfolk, v.c. 27, July 1916.—F. Long. This is *tenuiflorus* Curt.; the peduncles are more naked than any of my specimens; but in my foreign specimens they are more so in the upper parts, the heads much longer, and the leaves densely cottony beneath.—S. H. Bickham, *in litt.* Not the type, but our ordinary British plant, *C. tenuiflorus*.—E. S.M.

C. crispus × *nutans*. Chalk-pit, Merrow Downs, Surrey, v.c. 17, Aug. 1916.—J. Comber. A good intermediate; it was sent to me fresh.—E.S.M. Certainly so, I should say,—C.E.S.

Cnicus arvensis Hoffm., var. *setosus* (Bess.). (1) Roadside near Guildford, Surrey, v.c. 17, Aug. 1916.—J. Comber. I believe this is the *mite* of Koch rather than Bieberstein's *setosus*.—C.E.S. (2) Hedgerow, Ennismore Avenue, Guildford, Surrey, v.c. 17, Sept. 15, 1916.—Coll. R. M. Kennedy. Comm. E. B. Bishop. I understand that Bieberstein's var. *setosus* has leaves much more entire than those of the specimen before me, which is better placed, I think, under Koch's *mite*.—C.E.S.

C. arvensis × *lanceolatus*. Roadside waste, near Bramley, Surrey, v.c 17, Aug. 1916.—A single large plant, growing with

both parents, on roadside waste, near Bramley, Surrey, kindly named for me by the Rev. E. S. Marshall.—J. Comber. There does not appear to be much evidence of *arvensis* in the specimen sent to me. Rouy ("Fl. Fr.", IX. 26, 1905) describes " × *C. Csepeliense* Borbás . . . . (*C. lanceolato* – *arvense* Wimm.)" as having "calathides . . . . nues à la base ou à 1—2 feuilles florales bien plus courtes que les fleurs; périeline glabre ou peu aranéeux." These features I do not see in Mr. Comber's plant, which, as far as leaves go, agrees with Koch's description of Reichenbach's var. *nemorale* of *C. lanceolatum*.—C.E.S. I received a fresh specimen of this, which appeared to combine the characters of both species. Apparently a rare hybrid in Britain. I have several times searched for it where the parents grow together plentifully, but without success.—E.S.M.

Hieracium ——— (Ref. No. 4304). E. of Loch Laggan, W. Inverness, v.c. 97, July 27, 1916. Styles dark.—E. S. Marshall.

H. centripetale F. J. Hanb. (Ref. No. 4287). By a rocky stream (at 1500 feet), Glen Shirra, Laggan, E. Inverness, v.c. 96, July 28, 1916. Confirmed by Rev. E. F. Linton. Styles livid. I send my few remaining specimens; some of those gathered here were very fine.—Edward S. Marshall.

H. Shoolbredii E. S. Marshall. (Ref. No. 3602.) Raised from seed of an original plant, gathered on the mountains near Dalwhinnie, E. Inverness, v.c. 96, July 1911; garden, West Monkton, June 12, 1916. (For description, see "Jl. Bot." 1913, pp. 121–2.)—Edward S. Marshall.

H. ——— (No. 4). Near Llanberis, Carnarvonsh., v.c. 49, July 1916. Style livid.—J. E. Griffith. *H. vulgatum* Fr.—E.S.M.

H. ——— (No. 3). Walls about Bangor, Carnarvonsh., v.c 49, July 1916.—J. E. Griffith. Apparently *H. diaphanoides*. —E.S.M.

H. rigidum Hartm., var. *scabrescens* Dahlst. Old brickfield in Bitterne Park, near Southampton, S. Hants., v.c. 11, Sept. 4, 1916. Collected for me by Mr. J. F. Rayner, who sent it me first unnamed. This is a good example of the variety, pressed after a journey through the post. Styles livid, as usual; new to the county.—E. F. Linton. My specimen is clearly a *boreale* form, and seems to agree best with var. *rigens* (Jord.).—E.S.M.

H. umbellatum L. (1) Talbot Woods, Bournemouth, S. Hants., v.c. 11, Aug. 7, 1916. Styles yellow.—H C. Littlebury. Yes

the var. *linnæifolium* Wallr.—E.S.M. (2) Hedgebank, Maentwrog, Merionethsh., v.c. 48, Aug. 25, 1916.—W. C. Barton. Yes; a form with sub-entire leaves.—E.S.M.

Sonchus arvensis L., var. *glabrescens* Hall. Railway bank, near Worplesdon, Surrey, v.c. 17, Aug. 1916.—J. Comber. Right.—E.S.M.

Campanula latifolia L. Ref. No. 4368. By the River Barle, above Dulverton Station, S. Somerset, v.c. 5; in good quantity, and apparently a true native, Aug. 22, 1916. The Rev. R. P. Murray found a single clump, thereabouts, many years ago, and placed it among "Excluded species" in his "Flora of Somerset"; but it occurs pretty freely for some distance, and I believe it to be indigenous.—Edward S. Marshall.

Monotropa Hypopitys L., var.? Offley Holes, Hitchin, Herts., v.c. 20, July 8, 1916.—H. C. Littlebury. I admit there are a *few* hairs on inside of petals and stamens, but I consider these are insufficient to bring the plants under the pubescent variety which has the ovary distinctly hairy. In these examples the germen seems distinctly glabrous.—C.E.S.

Anagallis fœmina Mill. (1) Ref. No. 234 A. Petals glandular-ciliate. Near Keevill's Mill, Calne, N. Wilts., v.c. 7, Oct. 16, 1912. (2) Ref. No. 234 B. Petals *not* glandular-ciliate. Same station and date. A casual, and possibly introduced with foreign corn. The few plants were larger and more luxuriant in growth than any others I have seen, some of the weak branches (ascending towards the tip) being 16 inches in length; and they yielded specimens with petals glandular-ciliate and not glandular-ciliate. The leaves are mostly in whorls of three. Dr. Williams ("Prodromus," p. 427 sqq.) does not mention a ternate form of *A. fœmina*, though of *A. arvensis* he describes a var. *ternata* Williams (= var. *verticillata* A. Diard). Of the latter I gathered a specimen in a hedgerow in the same district in 1895.—W. C. Barton.

Centaurium pulchellum Druce. (1) Ref. No. 241. Facing the sea, Freshwater Down, I. of Wight, v.c. 10, Aug. 29, 1912. (2) Ref. No. 242. Sand near the sea, Albecq, Guernsey, Aug. 16, 1912. These are the plants alluded to in Syme's "Eng. Bot." and Townsend's "Fl. Hants." The suggestion made in the latter that the condition is occasioned by the plants being constantly browsed certainly cannot apply to the Albecq plants. Mr. Marquand, in "Fl. Guernsey," says that the Albecq plant is probably var. *Schwartziana* Wittr. It does correspond to the

description given in Rouy's "Fl. de France" of *Erythræa ramosissima* Pers., var. *pulchella* Griseb., for which he gives Wittrock's name as a synonym.—W. C. Barton. I think both the Freshwater and the Albecq plants that have reached me are nearer Wittrock's *contracta* than his *Schwartziana*.—C.E.S. Very dwarf; but I see no varietal character. Near Pagham, W. Sussex, a similar form occurs in thousands, but shades off insensibly into the ordinary coast-plant.—E.S.M.

Amsinckia intermedia F. & M. Waste ground, Brislington, N. Somerset, v.c. 6, June 16, 1916. Stamens inserted in throat of corolla tube. Is *A. angustifolia* Lehm. a synonym?—Ida M. Roper.

A. lycopsioides Lindl. Waste ground, Horfield, Bristol, W. Glos., v.c. 34, June 23, 1916. Stamens inserted at base of corolla tube.—Ida M. Roper. Both this and the preceding one are correct according to descriptions in DC. "Prodr.", but the genus needs revision.—A.J.W.

Symphytum officinale L., var. *purpureum* Persoon. (= *S. patens* Sibthorp). By the Land Yeo stream near Flax Bourton, N. Somerset, v.c. 6, June 13, 1912. The form with flowers of a deep red-purple hue. "*S. officinale*, when sterile, has the segments of the calyx spreading after flowering, and it is not improbable that from this circumstance Sibthorp gave the name of *patens* to the 'red-flowered comfrey.'" (C. Bucknall in "Jl. Bot.", 1912, p. 333).—Jas. W. White.

× *S. lilacinum* Bucknall (= *S. officinale*, var. *ochroleucum* × *purpureum* × *peregrinum*). Bank of the Frome near Frenchay, W. Glos., v.c. 34, June 27, 1916. We have now two stations for this scarce hybrid. These specimens are approved by Mr. Bucknall, who remarks that they differ slightly from the N. Somerset plant in producing more fruit, and having leaves rather less decurrent.—Jas. W. White. A very finely set-up series of this hybrid.—H.S.T.

S. caucasicum Bieb. Derived from the Chelsea Physick Garden. Cult. at Clifton, Bristol, by C. Bucknall, April 30, 1916.—J. W. White.

Lithospermum officinale L., var. *pseudo-latifolium* C. E. Salmon. Netherlands Copse, near Guildford, Surrey, v.c. 17, July 1916. —J. Comber. Yes, certainly. Sent from this station to the other Club in 1915.—C.E.S.

Veronica Chamædrys L., seedlings. Ashmansworth, N. Hants., v.c. 12, April 25, 1916.—W. C. Barton. Very interesting. We want more in this direction. There is scope for good work in the life-histories of our plants.—A.B.

V. scutellata L. Mitcham Common, Surrey, v.c. 17, July 1916. I have never before heard of this growing at Mitcham In De Crespigny's "London Flora" it is recorded from Keston Common, Epping Forest, and Putney Heath.—W. R. Sherrin. Reported from this locality many years ago by Mr. Arthur Bennett. It is satisfactory to know that it still exists there.—C.E.S.

Euphrasia campestris Jord. Rough pasture, Failand, N. Somerset, v.c. 6, Aug. 2, 1916. I am indebted to Mr. Bucknall for an introduction to this plant, which hitherto in this district had been passed over or confused with *E. nemorosa*, the species that always accompanies it, and which it closely resembles in habit and characters of flower and foliage. From *E. nemorosa*, however, this form is readily distinguished by its clothing of glandular hairs. Mr. Bucknall has explained that the flowers of British *Euphrasiæ* vary so much in size in the same species that the corolla-length cannot be relied on as a specific or group distinction in the classification of our plants to the extent it has been employed by Wettstein and Townsend. My friend, therefore, is not content to place *nemorosa* and *campestris* apart in the two divisions *Parvifloræ* and *Grandifloræ* as they were arranged by the authors just mentioned.—Jas. W. White. My specimens do not show a lengthening corolla-tube, and hence cannot come under *campestris*, which—as I know it in Derbyshire—is very much like a glandular *Kerneri*, and not at all like *Rostkoviana*, with which it is associated by Rouy and others. These plants seem to be nearer to *brevipila*.—E.D.

E. nemorosa H. Mart. Mount Stewart, Co. Down, 1916.—C. H. Waddell. There are many short hairs on the leaves and bracts, and I believe that Wettstein would refer this to his *E. curta*, var. *glabrescens*.—E.S.M. Yes; *E. nemorosa*, but excessively branched, probably from growing in deep, wet moss or other vegetation.—C.B.

E. scottica Wettst. Ref. No. 4251. Common about Loch Laggan, W. Inverness, v.c. 97, July 31, 1916.—Edward S. Marshall. Not *E. scottica*, I think, but *E. gracilis*, on account of

the brightly-coloured flowers, the dark stem, and the numerous branches in some of the specimens.—C.B. It is certainly more freely branched than usual, but it has the hairy margins of the leaves and bracts, and the obtuse teeth of the lower bracts of *scottica*. The colour in flower and stem is far too variable a character, in my experience, to carry much weight.—E.D. Not *E. gracilis* (as suggested by Mr. Bucknall), which is mainly a plant of dry heaths, etc. The two are, of course, very closely allied; but *E. scottica* often has a rather metallic look in the foliage when fresh, and the central lobe of the lower lip exceeds the lateral ones. This grew in decidedly moist places; it is the prevailing species of the district, varying much in habit, and considerably in the colour of the flowers. Specimens from exactly the same station were confirmed by Wettstein as his *scottica*.—E.S.M.

Barlsia Odontites Huds., var. *serotina* (Bert.), f. *divergens* (Jord.). Ref. No. 236. Roadside, Calbourne, I. of Wight, v.c. 10, Sept. 15, 1916. This plant, with wide-spreading branches, occurs on the chalk down between Carisbrooke and Calbourne, and was far more abundant than any other form near Calbourne station. In many of the specimens the lower branches spread at right angles to the stem. I doubt whether *divergens* can be put outside *serotina*; but the species is treated unsatisfactorily in the books, and needs further study, especially as to distribution of forms.—W. C. Barton. Yes; I should think this is correctly named.—C.E.S. What I have as *Odontites divergens* Jord. (*B. Odontites*, var. *divergens* Balbis), distributed in 1892 through the Bot. Exch. Club by Major Wolley-Dod from Blackmore, Essex, has the branches spreading approximately at right angles; not patent-ascending, as in my specimens of Mr. Barton's plants, which seem to be rather slender *serotina*.—E.S.M.

Rhinanthus major Ehrh., var. *platypterus* Fries. Peat-moor near Edington Junction, N. Somerset v.c. 6, June 6, 1916.—H. S. Thompson, in company with Mr. E. S. Marshall and others. (*See* 32nd Report, p. 548). I should like to see this in ripe fruit. The only capsule examined was immature, containing young seeds. These were mostly rather broadly winged. It must be remembered that when the seeds of "var. *apterus* Fries" are young they are often narrowly winged; this caused Ostenfeld to include both *apterus* and *stenopterus* Fr. under his *Alectorolophus apterus* Ostenf. Rouy ("Fl. Fr.") strangely omits any mention of both *platypterus* and *stenopterus* in his account of the genus.—C.E.S.

Mentha longifolia Huds. Lane leading from Castleton Farm to Clifford, Herefordsh., v.c. 36, Sept. 4, 1916.—Coll. Mrs. C. L. Wilde. Comm. E. B. Bishop. Yes.—C.E.S.

M. piperita L. Lane near Rowlstone, Herefordsh., v.c 36, Sept. 7, 1916.—E. B. Bishop. *M. piperita, a officinalis* (Hull). – C.E.S.

M. ? aquatica × *longifolia*. Lane leading from Castleton Farm to Clifford, Herefordsh., v.c. 36, Sept. 4, 1916.—E. B. Bishop. The shape of the spike, clothing of calyx and pedicel, etc., seem to take this away from *longifolia* type, and the example before me may well be, as Mr. Bishop names it (*i.e. pubescens* Willd.), on the *longifolia* side. I presume *M. aquatica* grew not far away ?—C.E.S.

M. rubra Sm. (1) Roadside, Bourn, Cambs, v.c. 29, Sept. 30, 1916.—A. J. Crosfield. I hardly know this in the field; but Mr. Crosfield's plant closely agrees with the average of my herbarium specimens. There seems to be good evidence of *M. spicata* and *M. aquatica*; *M. arvensis* (now supposed to be one of the factors) is not so apparent.—E.S.M. Yes; good *rubra* I should say.—C.E.S. Correctly named. This seems to be a new record for Cambs. It is not given in Prof. Babington's "Flora of Cambridge" (1860), in Messrs. Marr and Shipley's "Natural History of Cambridge" (1904), or in Mr. Evans' "Short Flora of Cambridge" (1911). The mints seem singularly rare in a county of so much water and many ditches.—A.B. (2) Quarry ground, Newton St. Loe, N. Somerset, v.c. 6, Sept. 13, 1916.—Ida M. Roper. A very different form from the Cambridgeshire one, sent this year. Here *M. arvensis* predominates; *M. aquatica* is mainly traceable in the pubescence, *M. spicata* in the scent, and in the foliage of the main stem.—E.S.M. This cannot, I think, be placed under *rubra*. It is better, I believe, under *gentilis* (of which it has the pleasant scent), and perhaps var. *Wirtgeniana* is its correct position.—C.E.S. This seems correct. The corollas do not seem to be hairy, but the plant is rather abnormal, as the main stem has been broken off my specimen, giving rise to four slender branches. The hairs on the veins of the leaves (undersides) are rather whiter than usual.—A.B. I certainly thought, on looking through the specimens, that *M. arvensis* predominates here.—H.S.T.

Thymus Serpyllum L. Ref. No 249. Chalk cliffs facing sea at Freshwater, I. of Wight, v.c. 10, Sept. 14, 1916. I send this form, as it is frequently mistaken for *T. lanuginosus* Mill. The

development of hairs is due to situation on porous chalk. Within a few yards, on the rich soil of a putting green equally exposed, the plant was quite normal.—W. C. Barton. I have seen very hairy plants like this in similar situations. *Thymus lanuginosus* of Miller is a distinct species, which has not, so far as I am aware, been found in Britain.—A.B.J.

Galeopsis angustifolia Ehrh., var. *canescens* (Schultz). Pewley Hill, Guildford, Surrey, v.c 17, Sept. 25, 1916.—Coll. R. M. Kennedy. Comm. E. B. Bishop. Yes, I believe so.—C.E.S.

Plantago media L., ? var. *lanceolatiformis* Druce. Hedgebank and borders of bushes, Albury Down, Surrey, v.c. 17, July 1916.—I do not know if these come under Mr. Druce's variety; but, in the present case, they would seem to be merely a state due to situation. They grew amongst the long herbage at the bottoms of hedges and bushes.—J. Comber. If I remember rightly, Mr. Druce's specimens, issued through the Bot. Exch. Club, are far less luxuriant, though much like this in essentials. Very handsome and striking.—E.S.M. *P. media* L., var. *Monnieri* Rouy (= *P. Monnieri* Giraud).—E.G.B.

P. Coronopus L., ? var. Puttenham Heath, Surrey, v.c. 17, June 4, 1916.—E. B. Bishop. *P. Coronopus* L., var. *pygmæa* Lange.—E.G.B.

Chenopodium [*carinatum* R. Br.]. St. Philip's Marsh, Bristol, W. Glos., v.c. 34, Sept. 19, 1916.—Ida M. Roper. This has not the flowers in axillary clusters, *i.e.* is not a "Blitum," and so cannot be *C. carinatum* R. Br. I suspect it may be *Atriplex laciniata* L., em. Koch (*A. tatarica* L. sec. Boiss.)—a Mediterranean alien, but it is useless to send Chenopodiaceae so young!—A.J.W.

Atriplex hastata L., var. *genuina* Godron, forma *salina* Moss & Wilmott. Ref. No. 213. On mud in Newtown saltpans, I. of Wight, v.c. 10, Sept. 7, 1916. Closely prostrate, leaves thick and fleshy; plant often turning red (= *A. deltoidea*, var. *salina* Bab.). I understand that seedlings from prostrate plants like these carefully self-fertilized came up in Mr. Wilmott's garden indistinguishable from upright *hastata*.—W. C. Barton. This is so named since natural seedlings from plants similar to it developed in garden soil into *A. hastata* var. *genuina* 2½ feet high. Self-fertilised seeds, obtained to test for hybridity, were unfortunately sown in pots and kept rather dry. They came up fairly uniform, 9—12 in. tall, stiff erect, and very like var. *oppositifolia*! Opportunity to confirm these remarkable results has not occurred.—A.J.W.

A. hastata L., ? × *Babingtoni* Woods. Ref. No. 201. On sand at Brading Harbour, I. of Wight, v.c. 10, Sept. 8, 1916. All these specimens were taken from one plant five feet in diameter. (In "Fl. Hants." Townsend mentioned a plant of *Babingtoni* 21 feet in circumference). The *Babingtoni* influence is not so apparent as the *hastata*, but I have seen no *hastata* like this. The above parentage was suggested by Mr. Wilmott. Both parents were present.—W. C. Barton. I examined Mr. Barton's series of *Atriplex* before sending to the Club. The naming represents my opinion on these forms. The forms which I name *A. hastata* × *Babingtoni* cannot be referred merely to *A. hastata*. They are never, in my experience, found inland, and are confined to places where forms of *A. Babingtoni* grow.—A.J.W.

A. Babingtoni Woods. Ref. No. 208. Shingle at Brading Harbour, I. of Wight, v.c. 10, Sept. 8, 1916. All from one plant. The inflorescence, hardened yellowish fruit and rhomboid bracteoles put this to *Babingtoni*, as against the green fruit, bracteoles ovate triangular, with base campanulate, and inflorescence leafy to the tip of *virescens*. I have specimens from Brading which match closely Mr. Beeby's plant in Herb. Brit. Mus. certified as *virescens* by Lange himself. But though extreme plants of what Mr. Wilmott in "Camb. Brit. Flora" groups under *A. glabriuscula* Edm. can be put with certainty to var. *Babingtoni*, or var. *virescens*, I have found no specimen of either variety which does not bear some fruit tending in the direction of the other. I should be glad if any member would send me a series of specimens showing the complete range of *Atriplex* in any locality. To be of use for critical study it is essential that specimens should bear ripe fruit.—W. C. Barton.

A. Babingtoni Woods × *hastata* L., var. *oppositifolia* Moquin. Ref. No. 212. On shingle, Bembridge, I. of Wight, v.c. 10, Sept. 13, 1916. With both parents. Small plants erect, larger prostrate. Mr. Wilmott puts these plants to the series of hybrids *A. glabriuscula* × *hastata*, var. *oppositifolia*. (*See* "Camb. Brit. Flora," II. p. 178.) The presence of large and small fruits is probable evidence of hybridity.—W. C. Barton.

Salicornia ——— Ref. No. 13. W. end of Great Deep, Thorney Id., W. Sussex, v.c. 13, Oct. 11, 1916. Dr. E. J. Salisbury remarks about this, "I think it is very small atypical *S. ramosissima*, probably × *S. prostrata*, var. *appressa*." The plants are certainly not starved specimens. The spikes were very fleshy, brightly shining. The root, in shingle or mud, was

but little branched, rather wiry, and came up comparatively clean. The stem was also rather wiry, sometimes erect; in other cases rather prostrate. The colour of the spikes varied from red to greyish green. Dr. Salisbury's association of it with *S. ramosissima* is rather puzzling, as there seemed nothing in common in the habit of the plant.—J. E. Little. The very pointed spikes indicate *S. ramosissima*, the habit favours either *Smithiana* or *appressa* as a likely parent.—E.S.M.

S. disarticulata × *ramosissima*. Ref. No. 16. Fide E. J. Salisbury. Longmere Point, Thorney Id., W. Sussex, v.c. 13, Oct. 11, 1916.—J. E. Little. Of the three specimens on my sheet, one is wholly single-flowered, and quite agrees with authentic *S. disarticulata*. The other two have some admixture of flowers in threes, and cannot be pure *disarticulata*, though they only differ from it in habit by the rather longer terminal spikes, and the more pointed apex of nearly all. These are good signs of *S. ramosissima*. Dr. Salisbury's naming is doubtless right.—E.S.M.

S. pusilla Woods. Ref. No. 15. Fide E. J. Salisbury. Marsh inside Stanbury Point, Thorney Id., W. Sussex, v.c. 13, Oct. 11, 1916.—J. E. Little. First-rate examples of this rare species, which I must have overlooked when exploring Thorney Island fifteen years earlier.—E.S.M.

S. pusilla Woods, var. *gracillima* Towns. Ref. No. 11. Fide E. J. Salisbury. Marsh inside sea bank, near Pagham Church, W. Sussex, v.c. 13, Oct. 10, 1916.—J. E. Little.

S. gracillima × *ramosissima*. Ref. No. 14. Fide E. J. Salisbury. Marker Point, Thorney Id, W. Sussex, v.c. 13, Oct. 11, 1916.—J. E. Little. This appears to be the most probable solution; it is nearer *S. gracillima*, but not purely that.—E.S.M.

"It is unfortunate Dr. Moss was unable to report upon this series of *Salicornia* before leaving England.—H.S.T.

Suæda maritima Dum., var. *procumbens* Syme. Ref. No. 244. Newtown saltpans, I. of Wight, v.c. 10, Sept. 7, 1916. In the "Camb. Brit. Flora" this is put under var. *flexilis* Rouy, "Fl. de Fr." XII, 63, but Rouy *loc. cit.* gives var. *flexilis* Focke, "Tige dressée flexueuse, presque simple; graines de 1–1¼ mm." and var. *a vulgaris* Moq. "Tiges couchées ou ascendantes-diffuses; graines de 1¼—1½ mm." Mechanical action of tides seems to me quite inadequate as an explanation of the procumbent forms of *Suæda* or *Salicornia*. I have certainly seen in Guernsey the two forms

of *Suæda maritima* growing together where they were equally exposed to tidal action.—W. C. Barton. Yes; a slight variety. I have occasionally seen it on dry mud, seldom reached by the tide.—E.S.M.

Polygonum Convolvulus L., var. *subalatum* Lej. & Court. Ref. No. 247. (1) Garden hedge at Freshwater, I. of Wight, v.c. 10, Sept. 7, 1916. In the "Camb. Brit. Flora" the variety is thus defined: "Laminae about twice as long as broad. Inflorescence many-flowered. Exterior perianth segments eventually narrowly winged." In these specimens, which were all taken from one plant, the laminae vary from slightly longer than broad to twice as long; the inflorescence is never few-flowered, but the development of the wing varies considerably.—W. C. Barton. Not so well marked as some *subalatum* which I have seen possessing perianth-wings up to 1 mm. in width, and then sometimes mistaken for *dumetorum*. Mr. Barton's example before me could never be so confused. I do not know what the expression (in the "Camb. Fl.") "perianth segments eventually narrowly winged" means, as in well-marked *subalatum* the wings are obvious (though variable in width) in all stages of the inflorescence. As Mr. Barton notes, the leaf-character seems an inconstant one.—C.E.S. (2) Field near Caldecote, Cambs., v.c. 29, Sept. 30, 1916.—A. J. Crosfield. Yes, quite nice *subalatum*. If held up to the light, the wings are very evident on my example.—C.E.S.

P. aviculare L., var. *agrestinum* (Jord.). No. 2. Grey Abbey, Co. Down, Sept. 1916. Flowers bright red, closely placed towards end of branches, plants prostrate, widely spreading.—C. H. Waddell. I believe this is correct.—E.S.M.

P. aviculare L., var. [*vulgatum* Syme] No. 1. Grey Abbey, Co. Down, Sept. 1916. Leaves caducous.—C. H. Waddell. Under *agrestinum*, I think; but broader-leaved than No. 2.—E.S.M.

P. aviculare L., var. *arenastrum* (Bor.) (= *P. æquale* Lindman). Grey Abbey, Co. Down, Sept. 1916. Branches not so congested as usual.—C. H. Waddell. One of my pieces is good *arenastrum* (as understood by Syme); the other does not differ much, but is less characteristic.—E.S.M.

P. ——— Shalford Common, Surrey, v.c. 17, Sept. 1888.—Coll. A. Bennett. Comm. C. E. Salmon. I know this plant on Shalford Common, and consider it a low-growing state of

P. nodosum Pers. (= *maculatum* Trim. & Dyer). It agrees well with the description of that plant in "Camb. Brit. Fl." II. 117, where, although attention is rightly drawn to its smaller seeds as compared with those of *P. lapathifolium*, their size is not given. In this Shalford plant they measure approximately 2 mm. long by 1½ mm. broad, as compared with "about 3 mm. long and 2·5 broad" ("Camb. Fl.") of those of *lapathifolium*. Curtis ("Fl. Lond." fasc. 1, plate 25) gives a good figure of the tall erect state of *P. nodosum*, calling it *P. Pensylvanicum*, var. *caule maculato*, and in the description lays stress on the importance of the characters of the spotted stem and small seeds. The ochrae in the Shalford examples are practically eciliate, but described in "Camb. Fl.", under *P. nodosum*, as "shortly ciliate" (as against "not, or, only slightly ciliate" in *lapathifolium*). Curtis (*loc. cit.*) makes no mention of the ochrae being fringed, and from his beautiful drawing it would certainly appear that they were not so. Mr. Hunnybun has drawn them in "Camb. Fl." without cilia also. An examination of undoubted examples of *P. nodosum* shows that this character is not a stable one, and that ochrae, fringed or not, occur in this species.—C.E.S. *P. nodosum* Pers. (*maculatum* Bab.). I have seen it there, by the pond where *Cyperus fuscus* grows.—E.S.M

Rumex maximus Schreb. Fishbourne Millstream. W. Sussex, v.c. 13, July 30, 1916.—Coll. R. J. Burdon. Comm. J. E. Little. *R. Hydrolapathum* Huds., var. *latifolius* Trimen (*R. maximus* Auct. Angl.).—E.G.B. (*See* "Jl. Bot." V. (1876), pp. 27 & 283.)

Euphorbia platyphyllos L. In two or three fields in Goatham, a hamlet of Edmondsham, Dorset, v.c. 9, where it has persisted for some years, and is probably native, Aug. 22, 1916.—E. F. Linton.

E. stricta L. A casual at Ledbury, Herefordsh., v.c. 36, July 20, 1916.—S. H. Bickham

E. exigua L., var. *retusa* L. Railway bank, Walsworth, near Hitchin, Herts., v.c. 20, July 22, 1916.—H. C. Littlebury. Instead of giving this specific rank, as Mr. Littlebury does on his labels, I should be inclined, almost, to place it as something less than a variety under *E. exigua*. As has been pointed out before, one may find leaves characteristic of both type and "variety" *on the same plant*. One of the specimens before me has retuse leaves; the other makes a decided approach to *exigua*. —C.E.S.

Mercurialis perennis L. (Ref. No. 192). Arthog Woods, near Barmouth, Merionethsh., v.c. 48, June 12, 1915. I think only luxuriant type. On some specimens the leaves were very broad, 60 × 40 mm. The suggestion that the plant with ovate leaves is a sex form cannot hold in view of the fact that here both male and female plants had leaves of the same shape.—W. C. Barton. A very broad-leaved form, but it is not the *M. ovata* Steud.—J.W.W. This seems a step towards Mitten's "var. *ovata*," but I believe his Hurstpierpoint plant is not the true *ovata* Hoppe & Steud. of the Continent, which Dr. Stapf tells me is often kept up abroad as a species. It has almost sessile leaves and other characteristics.—C.E.S.

Urtica dioica L., var. *angustifolia* W. & G. Open waste ground, Sherringham, E. Norfolk, v.c. 27, Aug. 1916. Mr. Bennett remarks of this: "Your *Urtica dioica* is an approach to the var. *microphylla* Hausm., but that has still narrower and smaller leaves. I think you may name it var. *angustifolia* W. & G."—F. Long. Some specimens seem nearer *microphylla*.—H.S.T.

Betula nana L. Rannoch Moor, Mid-Perthshire, v.c. 88, July 26, 1916.—Coll. R. J. Burdon. Comm. J. E. Little.

Salix caprea L., with abnormal flowers. King's Wood, Yatton, N. Somerset, v.c. 6, Apr. 3 & Aug. 14, 1916. The ovaries have become staminiferous, pollen-sacs taking the place of style and stigma. (*See* Report B.E.C. 1915, p. 372).—Ida M. Roper.

Populus tacamahacca Mill. Bank of Frome, Frenchay, W. Glos., v.c. 34, Mar. 2 & Sept. 7, 1916.—Ida M. Roper. This was passed by Mr. A. B. Jackson.—H.S.T.

Liparis Loeselii Rich. Chippenham Fen, Cambs., v.c. 29, 1884. —A. Fryer & A. Bennett. The extension of range of this species to Glamorgan!, and Carmarthen! was of much interest. The specimens from these counties agree with those sent me by Drs. Focke and Buchenau from the Frisian Islands, where they grow associated with *Pyrola rotundifolia* and *minor*, *Parnassia*, *Carex trinervis*, *C. Œderi* and *C. Goodenowii*, *Juncus atricapillus* and *Hierochloe borealis*. The history of its discovery in Carmarthenshire is as follows: Mr. J. W. Barker wrote (June 14, 1900), "In July 1897 a friend of mine, Mr. R. Browne, brought me several plants which he had picked on the Burrows near Pembrey. Amongst them were two plants of a little green Orchis, which were quite new to me. I found to my surprise they were *Liparis*, and I

mentioned it to Dr. H. Lewis (who was a member of the Botanical Record Club about 1874), but he scouted the idea of its being *Liparis*. On the 22nd of June, 1899, I walked out to the valley, where to my delight I found 15 to 20 plants of it scattered about. A few years after, Mr. Browne told me that the little valley had entirely changed its appearance, the shifting sand having covered all the vegetation." On the 9th of June the same year Mr. H. H. Knight again discovered the *Liparis*, and sent me specimens, which agreed with Mr. Riddelsdell's from Glamorgan (Sept. 7, 1905). In Carmarthenshire the plant was associated with *Carex glauca*, *C. Goodenowii*, *C. arenaria*, *Salix repens*, *Mentha hirsuta*, etc. Mr. Riddelsdell sent me a list of 42 species with which it grew in Glamorganshire. We now have records of its being gathered in some 29 stations in 6—8 vice-counties. In Britain it seems to occur in abundance in cycles of about twenty years, gradually dying out until a recurrence. At p 622 (1904) of the "Norf. & Norw. Trans." I made the following remark: "It is what would be called a short-lived perennial; probably the year it occurs abundantly it seeds freely, the plants die, and the seed floats about until the water begins to run off the land in May, then the seed settles down and grows. It is well known that at times Orchis seeds take many years to germinate and come to the flowering stage. The water level is high, perhaps for some years, then there comes a dry season (like 1883—4), and the plant is exposed to view." Even in 1884 the ground was so wet that one dared not stop long in one place without fen-boards. There is an excellent description of its growth by Crépin in "Notes plantes rare ou critiques de Belgique," Fasc. 3, 102 (1868). He there describes how it has a progressive lateral growth, and one specimen I have shows this for four years, the old stems for 1881–2–3 and 4 still remaining. This, no doubt, is its usual growth, but at times it developes by a vertical growth, as is shown by a specimen sent me by Mr. Fryer, who remarks that this state occurs on Chippenham Fen. It is three inches in height (*i.e.* the root growth). Whether this is to get above the dense vegetation I am unable to say. When grown from seed the plant is only ¾-inch high at the end of the first year, the second year it is 1½ inches—how many years it is before it flowers I am unable to say. With regard to the name, Linnæus, in the 1st ed. of the "Sp. Plant." II. p. 946, has *Ophrys lilifolia* (7), in 947, (8), *O. Loeselii*, yet no one seems to have noticed this. In ed. 2, p. 1341, he has *O. Loeselii*.—A.B. See Mr. Britten's paper on "*Liparis liliifolia* and *L. Loeselii*" in "Jl. Bot." (1917), p. 246.—H.S.T.

Allium vineale L., var. *compactum* (Thuill.). North Road, near Baldock, Herts., v.c. 20, July 15, 1916.—H. C. Littlebury.

Juncus trifidus L. Argyll Corrie, Ben Lacigh, Argyllsh., v.c. 98, July 25, 1916.—Coll. R. J. Burdon. Comm. J. E. Little.

J. Gerardi Lois., var. *sorantha* Trautv. "Bull. Soc. Nat Moscou," XL, pt. 3, 110 (1867) = *J. soranthus* Schrenk, "Bull. Acad. Petersb.", ii, 193 (1843). Wyke Regis, Dorset, v.c. 9, July 1896. I have exactly the same from Anglesey (leg. J. E. Griffith), but very dwarf (*f. pygmæa*), only 1½ inches high. Mr. Griffith states that it grows by the acre, and is never large there. I also possess it from Islay, Inner Hebrides, 1892. (Dr. Gilmour ex A. Somerville).—A. Bennett.

Scheuchzeria palustris L. This plant was discovered by the Rev. J. Dalton, in June 1787, in Leckby (or Lakeby) Carr, near Boroughbridge, W. Yorks ("Eng. Bot." (1808), t. 1801). There are specimens in the Yorks. Phil. Society's Herb. gathered by Dalton at that date, and in 1790 and 1807. The history of this decreasing species (in Britain) will be found in the "Trans. Caradoc and Severn Valley Club," pp. 117—121 (1904) and "Notes from the Royal Bot. Garden, Edinburgh," t. 60, p. 57, No. XXII (1911). It still occurs in Perthsh. (Rev. E. S. Marshall, sp. 1914) and in Argyllsh. (Scaith, sp. 1910), and probably in Cheshire (Rev. W. R. Linton, sp. 1900).—A. Bennett.

Potamogeton heterophyllus Schreb., var. *graminifolius* (Fries). River Suck, Roscommon, Ireland, July 26, 1891.—Coll. H. Levinge. Comm. A. Bennett.

× *P. venustus* Baagöe (*P. crispus* × *alpinus*). River Earn, above Dalreoch Bridge, Mid-Perthsh., v.c. 88, Aug. 11, 1916. (Fide A. Bennett).—W. Barclay. This plant was also sent by Mr. Bennett through Mr. Salmon. (For a notice of it by Mr. Bennett see "Trans. Bot. Soc. Edinb." XXVII, pt. 1, p. 104, 1915—16).

P. ———. (Ref. No. 2646). Near St. George's Wharf, Pill, N. Somerset, v.c. 6, July 22, 1916. New to Somerset.—H. S. Thompson. *P. pectinatus* L., var. *diffusus* Hagström, *f. laxus* Tiselius (or very near it).—A.B

Zannichellia pedunculata Reichb. (with 5 fruits). Ditch near St. George's Wharf, Pill, N. Somerset, v.c. 6, July 22, 1916.—H. S. Thompson. I should not name this *pedunculata*, for the reason that that species has a common peduncle as well as

pedicels. Yours has only the latter. I do not know why the "Lond. Cat." uses Reichenbach's name, which dates, I think, from 1845, whereas Lilies' name *Z. pedicellata* "Mant." I, p. 18, is 1832, and is used in many Continental Floras.—A.B.

Eriophorum gracile Roth (1797) = *E. triquetrum* Hoppe (1800) Whitemoor, New Forest, Hants. (Messrs. Playfair and Druce). S. Somerset. (E. S. Marshall). It is a curious coincidence that its second English station was Whitemoor Pond, Surrey, where, "in 1843, there were thousands of specimens" (H. C. Watson *in litt.*). There it was gathered for the last time, in July 1848, by Mr. J. A. Brewer, the pond having been drained. The second Surrey station, "near Aldershot," was found by Mr. Beeby in 1885, and in 1886 I gathered it there with the finder. The plant is now known in Yorks., Surrey!, S. Hants.!, Dorset!, and S. Somerset!.—A. Bennett.

Carex Pairaei F. Schultz (ligules short). Little Malvern, Worcs., v.c. 37, Aug. 1915.—A. J. Crosfield. Gathered too late in the year, but I suppose correct. The fruit is mostly narrower than usual.—E.S.M. Yes; it has the smaller more abruptly contracted perigynium, etc., of this plant.—C.E.S.

C. Goodenowii Gay, var. (Ref. No. 4267) Moorland bogs, Strath Mashie, Laggan, E. Inverness, v.c. 96, July 15, 1916. Root creeping. Leaves narrow, erect. It seems to come near var. *recta* Asch. & Graeb.; but the spikelets are not distant.—Edward S. Marshall. Is not this near var. *angustifolia*, Blytt, "Norges Flora," 213 (1861)?—A.B.

C. digitata L. Steep mossy banks and ledges locally in Leigh Woods, N. Somerset, v.c. 6, May 1916. The seeds of this plant appear to fall very quickly.—H. S. Thompson.

C. punicea L., var. *tumidula* Laestad. (Ref. No. 4269). Moorland bogs, Strath Mashie, Laggan, E. Inverness, v.c. 96, July 15, 1916.—Edward S. Marshall. This seems to agree with Laestadius' description in his "Loca parallela plantarum," 283 (1839).—A.B.

C. strigosa Huds. (1) Withy-bed by stream at Pill, and extending, in places, half a mile up Markham Bottom, N. Somerset, v.c. 6, May 31, 1916. A new locality for this sedge, rare in Somerset, except in the Chew Valley.—H. S. Thompson. (2) By stream—a tributary of the R. Chew—in damp wood above Pensford, N. Somerset, v.c. 6, May 1916.—H. S. Thompson.

C. Œderi Retz., var. *œdocarpa* And. (= *C. flava*, var. *m*... Towns.). Peat-moor near Ashcot, N. Somerset, v.c. 6, July 1, 1916. Very abundant and variable in the district. A single plant was divided to form a dozen good specimens.—H. S. Thompson.

C. evoluta Hartm. (1818) = *C. filiformis* > *riparia* Rouy (1912), *C. riparia* × *lasiocarpa* Asch. & Graeb. (1898). Sharpham peat-moor between Edington and Street, N. Somerset, v.c. 6, July 1, 1916. Discovered new to Britain July 8, 1915 (*see* "Jl. Bot." 1915, p. 309). It grows with *C. lasiocarpa* in quantity, but neither year could I see true *riparia* less than a hundred yards away. Mr. Arthur Bennett has kindly furnished the following notes upon this plant:—

"*Carex evoluta* Hartm., Vet. Akad. Handl. (1816), p. 156; Hartman, Handb. Sk. Fl. Ed. I. (1820), p. 40; Richter, Plant. Europ. I. (1890), p. 170.

C. Kochiana Schüb. et Mart., Fl. Württemb. (1834), p. 601, non de Cand. Cat. pl. hort. bot. Monsp. (1813).

C. lasiocarpa × *riparia* Fries, Herb. Norm., f. 6, no. 75 (1840); Kunze, Suppl. zu Schkuhr's Riedgr., t. vii (1840), p. 33: Anders. Cyp. Scand., t. 8, f. 102 (1849), p. 20; Neuman, Sver. Fl. (1901), p. 690.

C. riparia × *lasiocarpa* Wimmer, Fl. Schlesien, Ed. 3 (1857).

C. riparia × *filiformis* Asch., Fl. Brand. I. (1864), p. 797.

C. filiformis × *riparia* Focke, Pfl.-Misch. (1881), p. 407; Rouy, Fl. de France XIII. (1912), p. 489.

Distribution:—

Norway: Ö.enkilen i Onsö.

Sweden: Skäne, Upland, Westmanland, Södermanland, Ö. Götland.

Russia: Petrograd.

Germany: East Prussia, Silesia, Saxony, S. Bavaria, Wirttemberg.

Austria–Hungary: Transylvania.

England: Somerset, among *C. riparia* and *C. lasiocarpa*, on the Turf moor. (H. S. Thompson.)

Scandinavian authors, as a rule, maintain this as a species, not indicating any hybrid origin. But as long ago as 1863 Treviranus;

in "Ad Caricographiam Rossicam Ledebourio evulgatam suppl." ("Bull. Soc. Nat. Moscou," XXXVI, II, 1863, p. 544) writes: '*C. evoluta* Hartm. quae in Silesia quoque a Wimmero lecta est, tunc, si tertia adest spica feminea, bracteam vaginantem habet. Secundum observationes Cl. Boottii ("Ill. gen. Carex") planta Succica est hybrida proles e *C. riparia*, v. *paludosa* et *C. filiformi*, quod in Silesiaca Wimmerus confirmavit.' There is no record of *C. evoluta* from Finland, though *C. riparia* and *lasciocarpa* grow together in South Finland."

Mr. C. E. Salmon says that two named forms of the hybrid are known on the Continent; the other form is × *C. pseudo-nutans* Boreau (1885) = *C. acuminata* Reichb. (1846); *C. spadicea* × *filiformis* Aschers. (1864); *C. filiformis* < *riparia* Rouy (1912). That form has leaves 5—7 mm. broad, fruit only 3—3½ mm. long, and glumes as long as, or much longer than, the fruits.—H. S. Thompson.

C. hirta L., var. *spinosa* Mort. Water meadows, St. Cross, Winchester, S. Hants., v.c. 11, June 1916.—J. Comber. Under that, I think; but not extreme. Perhaps a form rather than a constant variety.—E.S.M. Yes; I believe correctly labelled.—C.E.S. Rather young specimens. In Somerset we find intermediate forms of this variety of this most variable sedge.—H.S.T.

Digitaria sanguinalis Scop. On rubbish tipped at Eastville, Bristol, Oct. 1916.—J. W. White.

Alopecurus bulbosus Gouan. Meadows near Lavant Sluice, Appledram, W. Sussex, v.c. 13, May 1915.—Coll. R. J. Burdon. Comm. J. E. Little.

Phleum phleoides Simonkai. Wilbury Hill, Hitchin, Herts., v.c. 20, July 22, 1916.—H. C. Littlebury.

Polypogon monspeliensis Desf. Thorney Id., W. Sussex, v.c. 13, Oct. 11, 1916.—J. E. Little. These specimens are small, and do not show the lobing of the panicle. Those I gathered in 1873, from Plumstead Marshes, Kent, had the panicles 5 inches long by 1¼ inches wide; it is then a most beautiful grass. Dr. Bromfield ("Phyt." III. (1850), p. 1083) says that the large form is "*α major* Kunth," and the smaller one "*β minor*." He speaks of *major* "rising to the height of four feet . . . bearing a panicle from 4—5½ inches in length," and remarks that L'Obel, in "Stirpium adversaria nova," pars II., p., 469 (1605) alludes to the great size of the Hampshire plant.—A.B.

Calamagrostis stricta Trin., var. *Hookeri* Syme. Damp meadows, Lagan Canal, Lough Neagh, Co. Armagh, Aug. 7, 1886, (R. L. Praeger). This interesting plant, considered as endemic even by Dr. Häckel, has now been found in England by Mr. Robinson, who sent me specimens from a fen at Stow Bedon, W. Norfolk, v. c. 28 (July 22, 1915). One state of the species occurs abundantly at Hickham Fen, about 2½ miles from Stow Bedon. Mr. Druce (Secretary's Rept. Bot. Ex. Club for 1915, p. 287, 1916), commenting on the Norfolk plant, remarks: "It differs somewhat in facies from the plant I gathered near Toom Bridge, on Lough Neagh." This I possess; but the Norfolk plant is even more like *Hookeri* than Dr. Moore's original specimen gathered in 1836, which I also have. The fact is, the species is very variable in its flowering parts, and the whole genus in Europe wants careful revision, no two authors agreeing as to species, hybrids, or varieties. The name and authority also is by no means settled, and our plant (in England, Scotland, and Ireland) does not agree with Central European or some Scandinavian specimens. Mr. Druce (*l.c.*) also names it *Deyeuxia neglecta*, var. *Hookeri* (Syme) Druce, but I so named it in Wallace's "Island Life," ed. 2, 363 (1892). The name *neglecta* comes from Ehrhart's Beit. VI. 137 (1791), but under *Arundo*. He had previously so named it in his "Calamariae exsicc." No. 113, Dec. 3 (1786). There are two early records of this species occurring in Scotland. The original one "in a marsh called the White Mire, a mile from Forfar." Mr. G. Don, June 1807 (*see* "Eng. Bot." (1810), t. 2160). It became extinct there soon after 1813, the marl having been dug out of the "Moss." The second one, "Near Rescobie, 4 miles from Forfar," J. Drummond (*see* Hooker, "Brit. Fl." ed. I. 32 (1830), repeated by Hooker & Arnott, "Brit. Fl." ed. VIII (1860), p. 536).—A. Bennett. (*See* "Two varieties of Calamagrostis," by C. E. Salmon, in "J. Bot." (1917), 254).—H.S.T.

Cynosurus echinatus L. South Inch, Perth, Mid-Perthsh., v.c. 88, July 27, 1916. Found in plenty, in June 1916, by Mr. James Menzies, growing in the above meadow. A section of the Army Service Corps were encamped there the previous year, and no doubt seeds of this alien had been scattered from fodder supplied to their horses.—W. Barclay.

Poa pratensis L., var. *subcoerulea* (Sm.). Sutton Road, Southend, S. Essex, v.c. 18, June 1913.—W. R. Sherrin. Either this, or near it, but in poor condition.—E.S.M.

Festuca ambigua Le Gall. Gravel pit, Mildenhall, W. Suffolk, v.c. 26, June 12, 1916.—W. C. Barton. Very fine plants. On the neighbouring dry heaths it becomes extremely dwarf.—L.S.M. Yes; excellent material, but a little over-ripe.—C.E.S. This grass is a beautiful object when growing, as it usually does, in masses. In Norfolk it can be seen a long distance, but it soon passes away, and on the Warrens is generally quite over by the first week in July.—A.B.

F. ———. Sutton Road, Southend, S. Essex, v.c. 18, June 1913.—W. R. Sherrin. Under *F. rubra* L.; I incline to think it is var. *fallax* Häckel.—E.S.M.

Hordeum europæum All. Plentiful in Wood near Chipstead, Surrey, v.c. 17, July 22, 1916. A rare plant in our county, and therefore satisfactory to report in a new (I believe its third) station in Surrey. Scarce in Kent and Hampshire, and unrecorded, so far, from Sussex.—C. E. Salmon.

Athyrium alpestre Milde. Ref. No. 4272. Coire Dhuibhe, Laggan, E. Inverness, v.c. 96, July 14, 1916.—E. S. Marshall.

A. alpestre Milde, var.? Ref. No. 4275. Coire nan Gall, north of Loch Laggan, W. Inverness, v.c. 97, July 28, 1916. Small forms like this are plentiful in the corries of the range, from about 2200 to over 3000 feet; much more general, in fact, than the larger plants, such as No. 4272. The pinnules are blunt, and they perhaps may come under the var. *obtusatum* Syme; but I have no named specimens of that.—E. S. Marshall. This nearly agrees with the var. *obtusatum* Syme, "Eng. Bot." ed. 3, XII. p. 114, 1886 (*A. eu-alpestre, β obtusatum*), but he says, "pinnae tapering gradually towards the apex, but not acuminate"—with the other characters it agrees.—A.B.

Equisetum arvense × *limosum* (= *E. litorale* Kühlewein). Ref. No. 4378. Rocky pools, etc., by the River Barle, above Dulverton Station, S. Somerset, v.c. 5, June 3, 1916.—E. S. Marshall.

E. palustre L., var. *polystachyum* Weigel. Swamp near Shamley Green, Surrey, v.c. 17, June 1916. This (so-called) variety grew here in great quantity, covering several square yards, apparently to the exclusion of the type. All the plants appeared to have borne a central spike, which was withered by the time I found them; and many fell off in the vasculum. The aberration did not appear to me to be due to any injury. I have found it this year in several stations in Hampshire but only in quite small numbers, or as individuals.—J. Comber.

Chara fragilis Desv. [var. *verrucosa* (Itzigs.)]. Pool, Ridge, near Wareham, Dorset, v.c. 9, June 26, 1916.—Ida M. Roper. *C. fragilis*, subsp. *delicatula* Braun, not the extreme form I understand as *C. verrucosa* Itzigs.—J.G.

C. fragilis Desv., sub-sp. *delicatula* Braun. (Fide J. Groves). Old brick earth, Wanborough, Surrey, v.c. 17, Aug. 1916.—J. Comber

C. aspera Willd. Fleet Pond, N. Hants., v.c. 12, Aug. 1916. —J. Comber. Yes.—J.G.

C. [*polyacantha* Braun]. In a pit on Coatham Marsh, near the road from Coatham to Kirkleatham, N.E. Yorks., v.c. 62, July 19, 1897.—Charles Bailey. A short branchletted form of *C. hispida* L.—J.G. "Apparently I had mistrusted my first naming of the plant, and did not send it out in the year of gathering, as my habit was."—C.B. *in litt.*

SUBSCRIPTIONS, 1916.

	£	s.
Babington, Mrs. C. C.	6	0
Bailey, C. (paid in 1909)	5	0
Barclay, W.	6	0
Barton, W. C.	6	0
Bickham, S. H.	6	0
Bishop, E. B.	6	0
Bostock, E. D.	6	0
Boyden, Rev. H.	6	0
Burdon, Rev. R. J.	6	0
Carr, Prof. J. W.	6	0
Clement, Miss J. F.	6	0
Comber, J.	6	0
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Darcy, Lady	6	0
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Druce, F.	6	0
Ewing, Mrs.	6	0
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Goode, G.	6	0
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Gregory, Mrs. E. S.	6	0
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Higgins, Miss D. M.	6	0
Hunnybun, E. W.	6	0
Linton, Rev. E. F.	6	0
Little, J. E.	6	0
Littlebury, H. C.	6	0
Long, Dr. F.	6	0
Luddington, J. L.	6	0
Marshall, Rev. E. S.	6	0
Mennell, H. T.	6	0
Peck, Miss C. L.	6	0
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Roper, Miss I. M.	6	0
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Waddell, Rev. C. H.	6	0
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Wilmott, A. J.	6	0
Wolley-Dod, Major A. H.	6	0
	£14	19 0

TREASURER'S BALANCE SHEET, 1916.

Receipts.

	£	s.	d.
Subscriptions for 1916	14	19	0
Sale of Reports		1	6
Balance due to Treasurer, Dec. 31st, 1916	2	8	6
	£17	9	0

Expenditure.

			£	s.	d.
Balance due to Treasurer, Dec. 31st, 1915			3	19	7
Printing—					
Thirty-second Annual Report (220 copies) 42 pages and wrapper ...	11	6	0		
Circular		4	6		
			11	10	6
Working Expenses—					
Distributor	1	6	0		
Receipt Books		12	11		
			1	18	11
			£17	9	0

SPENCER H. BICKHAM,
Hon. Treasurer.

31*st December*, 1916.

Vol. III., No. 2.

THE

THIRTY-FOURTH ANNUAL REPORT

OF THE

WATSON

Botanical Exchange Club

1917—1918.

Referees:

Rev. E. F. LINTON, M.A., F.L.S., Edmondsham Rectory, Salisbury.

Rev. E. S. MARSHALL, M.A., F.L.S., West Monkton Rectory, Taunton.

Rev. H. J. RIDDELSDELL, M.A., Wigginton Rectory, Banbury.

C. E. SALMON, F.L.S., Pilgrims' Way, Reigate.

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GEORGE GOODE, M.A., Lyndhurst, De Freville Avenue, Cambridge.

CAMBRIDGE:

PRINTED BY J. PALMER, ALEXANDRA STREET

1918.

FROM PHOTO TAKEN 1916

Yours sincerely
E. W. Stanyhurst

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THE WATSON

Botanical Exchange Club.

REPORT FOR 1917—18.

The contributions for the year give a total of 2827 sheets, and this satisfactory number has been much helped by the energetic work of Mr. W. C. Barton. The increase is some 500 plants over last year, and the revival shows that the Club is appreciated, and that members are prepared to make efforts to maintain the study of our Flora whenever opportunity can be found, in spite of the other claims on their time and the difficulties of collecting beyond their own locality.

The *Batrachian Ranunculi* and *Rubi* were well represented, and another great object of the Club, to obtain information about unusual gatherings of ordinary species, was usefully carried out.

Miss D. M. Higgins sent single sheets of a good number of *Rubi* taken from the surplus of her herbarium, and these filled gaps in the desiderata lists.

The preparation of the plants was not so carefully attended to by some members as could be desired, and spare labels were often overlooked.

The contributors for the year were :—

	Sheets.		Sheets.
Mr. C. Bailey ...	... 41	Rev. E. S. Marshall	... 180
Mr. W. Barclay...	... 17	Rev. W. Moyle Rogers...	79
Mr. W. C. Barton	... 870	Miss I. M. Roper	... 235
Mr. S. H. Bickham	... 124	Mr. C. E. Salmon	... 18
Rev. Preb. R. J. Burdon	257	Mr. W. R. Sherrin	... 26
Mr. A. J. Crosfield	... 25	Mr. H. S. Thompson	... 224
Rev. Preb. H. E. Fox	... 66	Rev. C. H. Waddell	... 85
Mr. J. E. Griffith	... 174	Mr. J. W. White	... 234
Miss D. M. Higgins	... 70		
Mr. J. E. Little	... 74	Total ...	...2827
Dr. F. Long ...	... 28		

Valuable notes were received from the following experts, to whom the Club is much indebted: Mr. E. G. Baker, Mr. W. Barclay, Mr. Arthur Bennett, Mr. C. Bucknall, Dr. and Mrs. Eric Drabble, Mrs. E. S. Gregory, Mr. J. Groves, Mr. W. P. Hiern, Mr. A. B. Jackson, Rev. E. F. Linton, Rev. E. S. Marshall, Mr. H. W. Pugsley, Rev. H. J. Riddelsdell, Rev. W. Moyle Rogers, Dr. E. J. Salisbury, Mr. C. E. Salmon, Mr. J. W. White, and Major A. H. Wolley-Dod.

IDA M. ROPER,
Distributor for the year 1917—18.

The Rev. W. Moyle Rogers has for so many years given us the benefit of his unique knowledge of the *Rubi*, in furnishing us with criticisms on the specimens sent in, that members will hear with the deepest regret that on account of increasing infirmity he has at last felt compelled to resign his position of referee. We are happy to say that the Rev. H. J. Riddelsdell, who has lately assisted Mr. Rogers, has kindly promised to examine and—where necessary—criticise all specimens of that difficult genus.

We have to record with very sincere regret the loss by death of our member Mr. E. W. Hunnybun, which took place at Ventnor on the 3rd of July. In his great work of illustrating the "Cambridge British Flora" be became known to a large circle of botanists, either personally or as a frequent correspondent on the plants they undertook to send him for his work. Though approaching 70, he had during recent years worked so assiduously that we believe he had almost completed the drawings. (*See* "Journal of Botany," Aug. 1918).

GEORGE GOODE,
Hon. Sec. and Editor.

Thalictrum minus L., var. *collinum* (Wallr.). (1) Roadside near Newmarket Heath, Cambs., v.c. 29, Aug. 15, 1917.—A. J. Crosfield. I agree.—E.F.L. (2) Cockley Cley, W. Norfolk, v.c. 28, July 26, 1917.—J. E. Little. Looks right, but mature fruit needed to name with certainty.—E.F.L.

Ranunculus fluitans Lam., var. *cambricus* (Ar. Benn.). Coron Lake, Anglesey, v.c. 52, July 4, 1917.—J. E. Griffith. This curious plant has always been a puzzle, and it would be of great interest to ascertain if its peculiarities are due to ecological factors by cultivating it under different conditions, especially in running water. If the Batrachian *Ranunculi* could be grown on

an extensive scale I believe many of our difficulties in connexion with this group of plants would be solved.—J.G. From the original locality, and though the specimen is poor, I believe it is correct.—A.B.

R. trichophyllus Chaix. (1) Pool, near Pagham, Sussex, v.c. 13, June 4, 1917.—R. J. Burdon. Yes.—J.G. I believe so. Leaf-segments unusually long.—E.S.M. (2) Mundham, Sussex, v.c. 13, June 4, 1917.—R. J. Burdon. Yes.—J.G.

R. heterophyllus Weber. (1) Aldsworth, Westbourne, Sussex, v.c. 13, June 4, 1917.—R. J. Burdon. The long peduncles suggest a form of *R. peltatus*, but the specimen is really not sufficiently complete for determination.—J.G. (2) Whyke Pit, Chichester, Sussex, v.c. 13, June 6, 1917.—R. J. Burdon. I think correct, but an unusually small form.—J.G.

R. peltatus Schrank. (1) Fishbourne, Chichester, Sussex, v.c. 13, June 9, 1917.—R. J. Burdon. The specimens suggest some lax form of *R. sphaerospermus*, rather than the river state of *R. peltatus*, but I should like to see a series of specimens.—J.G. (2) West Hoathley, Sussex, v.c. 13, June 12, 1917.—R. J. Burdon. A weak state of *R. peltatus* with unusually small flowers, or a hybrid with that species as a parent. The aquatic *Ranunculi* hybridise freely, and, whenever specimens are met with having weak peduncles ascending after flowering and producing few or no carpels, the other members of the group should be looked for in the neighbourhood to account for their parentage.—J.G.

R. peltatus Schrank, var. *floribundus* (Bab.). In a pond at Yate Lower Common, W. Glos., v.c. 34, May 19, 1917.—J. W. White. The *peltatus*-like form with shorter peduncles, which I understand by the name. A beautiful specimen, showing what can be done by careful floating out, in marked contrast to the draggled apologies for specimens one so often has to examine. There is no group of plants that better repay care than the aquatic *Ranunculi*. It seems to me that it is worth while in the case of these and other water plants to float them out; the trouble is not great, especially when one is drying a number, and the results are far more satisfactory than if the plants are merely spread out as in the case of land plants.—J.G.

R. sphaerospermus Boiss. Stream at Runcton, Chichester, Sussex, v.c. 13, July 3, 1917.—R. J. Burdon. The plant we are now calling by this name, and which appears to be a fairly well-marked species.—J.G.

R. [*pseudo-fluitans* Bab.]. River Avon, Newton St. Loe, N. Somerset, v.c. 6, June 12, 1917.—Ida M. Roper. I have not commented on your *R. pseudo-fluitans* from R. Avon, as I expect you have good reasons for so labelling it. From the one specimen I should have thought it *R. fluitans*, rather than one of the river *peltatus* plants to which I suppose Babington's *pseudo-fluitans* belonged, but the latter name has been variously used. The leaves are few-segmented as in *R. fluitans*. It is true that there are some short bristly hairs on the receptacle, but the receptacle of *R. fluitans* is often only sub-glabrous.—J.G. [*in litt.*] Your specimen seems to me to be best referred to *R. fluitans* Lam., and perhaps to the variety *minor* (*R. Bachii* Wirtg.) of that species.—W. P. Hiern. *R. fluitans* is a new record for v.c. 6.—I.M.R.

R. Baudotii Godr. Pool near Pagham Rectory, Sussex, v.c. 13, June 4, 1917.—R. J. Burdon. Two plants here, one *R. Baudotii*, the other a hybrid, probably with *R. Baudotii* as one parent.—J.G.

R. acris L., f. *tomophyllus* Jord. Grassy roadside at Cootham, W. Sussex, v.c. 13, June 29, 1917.—J. W. White.

Helleborus occidentalis Reuter (*H. viridis* L. *pro parte*). With small blotches of purple at base of sepals, as first noticed by Miss I. M. Roper in March, 1915 (*see* "Jl. Bot.", 1915, pp. 113, 147). Growing with the normal plant in the very old station at Winterhead, Sidcot, N. Somerset, v.c. 6, April 26, 1917, fruit June 12, 1915.—H. S. Thompson.

Fumaria officinalis L., var. ? Garden weed, Putney, Surrey, v.c. 17, July 1917.—H. E. Fox. A very remarkable plant. Leaf-segments narrow. Corollas small; the sepals long, in proportion. Fruiting pedicels ascending, very long, $2\frac{1}{2}$ to 3 times exceeding the bracts. Fruit much broader than long, abruptly truncate at the top, hardly retuse, rugose. Of our named varieties it seems to fit var. *minor* Haussknecht best; but it does not fully agree with Mr. Pugsley's description ("Jl. Bot.", 1912, Suppl. p. 52), nor my specimen, so named by him.—E.S.M. This is a depauperate shade-form, such as is likely to be produced in the garden of a London suburb, and is probably a state of ordinary *F. officinalis* rather than of any variety.—H.W.P.

Barbarea vulgaris Ait., var. *arcuata* Fr., sub-var. *brachycarpa* A. B. Jackson (*fide* A.B.J.). Wymondley Road, Hitchin, Herts., v.c. 20, July 15, 1917. All sheets from one plant.—J. E. Little.

Arabis hirsuta Scop., [near] var. *glabrata* Syme. Origin, Plumpton, W. Sussex, v.c. 13, 1913. Hort. Reigate, June 1916. I have hesitated to label these plants now distributed "var. *glabrata* Syme," as that author definitely states ("E. B." ed. 3, 166–7, 1863) that his variety should have "stem and leaves smooth, or the latter more or less ciliated at the margins." It will be noted that in these specimens, whilst the leaves are practically glabrous, the stems are decidedly hairy. I think, however, it will be found that "var. *glabrata*" may be satisfactorily distinguished by the peculiar shape and colouring of its root-leaves (besides the fact of their being glabrous, or almost so), and that the original diagnosis should possibly be amended to include the hairy as well as the glabrous stemmed plants (B. E. C. Rep. 1916, 556). The basal leaves of *A. hirsuta* shown in "E. B." IX. t. 587 (1799), and Coste, "Fl. Fr." I., p. 100 (1901), may well be compared with those of the Plumpton plant. In B. E. C. Rep. 1916, 556, the question is raised as to the best distinguishing characters of *A. ciliata* Br. and *A. hirsuta* Scop., var. *glabrata* Syme. Messrs. Pearsall and Lumb mention the ripe pod and seed features emphasised by Syme (*l.c.*), and through the kindness of Mr. Barton, who sent me some ripe seeds of the Dog's Bay *A. ciliata*, I have been able to see clearly the differences in size and shape of the seeds of these two species. When Mr. Barton's seeds germinated, and I was able to compare the *young rosettes* with those of *A. hirsuta*, var. *glabrata*, other differences came to light, and these seem worth putting on record. In general colour the rosettes of *A. ciliata* are blue-green, in the other yellow-green. In the former the leaves are practically glabrous above and below, except for rare simple and bifid hairs at margin (usually at tip and at teeth apex) and on petiole; in *A. hirsuta*, var. *glabrata* the leaves are similarly practically glabrous on both surfaces, but there are occasionally a few scattered simple and bifid hairs on the margin and on the upper surface near the tip. As regards the shape of the blade, this is much broader and blunter at the tip in *A. ciliata* than in the other plant (circa 13—19 mm. long by 10—13 mm. broad in *ciliata*, c. 13—19 mm. long by 6½—10 mm. broad in *hirsuta*, var. *glabrata*), and thus more orbicular in outline, and reminding one strongly of the leaves of the Daisy.—C. E. Salmon.

Sisymbrium strictissimum L. Casual in garden, Putney, Surrey, v.c. 17, June 28, 1917.—H. E. Fox.

Lepidium heterophyllum Benth., [var. *papillosum* (Dunn)]. (Ref. No. 298). About Coombe Farm, near Brendon, N. Devon, v.c. 4,

Sept. 1, 1917. I sent this out as var. *papillosum*, but now believe it is var. *canescens* (Gren. & Godr.). The 'papillae' were very noticeable when the specimens were gathered, but are much less so in the dried plants. In all the dried material of var. *canescens* I have examined the scales can be seen with a lens. Apparently the scales stand out from the pouches at certain stages of growth, perhaps owing to turgidity of the basal cells, and are closely appressed when the latter are dry. If this is so, the scales are not a reliable character for discrimination between *L. campestre* and *canescens*, and the var. *papillosum* should disappear. Dunn's diagnosis of *Lepidium Smithii*, var. *papillosum* in "Journ. Bot.", 1896, p. 477, is as follows: "Pouches more or less rough with papillae, usually smaller but often not less numerous than those of *L. campestre.* The prevalent, if not the only, form in some districts."—W. C. Barton. As far as these specimens are concerned, the varietal character seems *very* slight.—E.S.M. I do not think the silicles are papillose *enough* in these specimens to bring them under the *papillosum* of Dunn, as understood by Thellung. Mr. Barton's example agrees with a specimen Dr. Thellung named for me: "var. *leiocarpum*—silicula laevis vel minutissime papillosa."—C.E.S.

Viola epipsila Ledeb., f. *glabrescens* Asch. and Graeb. (*fide* E. S. Gregory). Stow Bardolph, W. Norfolk, v.c. 28, July 30, 1917.—J. E. Little. My specimens have the leaves and stems quite glabrous. The bracts are about the middle of the peduncle (not above it). The sepals, though oblong in shape, are very blunt, and hyaline-bordered. I believe this to be *V. palustris.*—E.S.M. The specimen sent me by Mr. Little, gathered at Stow Bardolph, and which I named *Viola epipsila*, f. *glabrescens*, differs from the one described by Mr. Marshall. It has thinly scattered hairs on the upper and under surfaces of the leaves, and bracts *above* the middle of the peduncle. The sepals are less pointed than usual, but this is a variable character, as is also the position of the bracts. Wherever *V. epipsila* occurs in our country or Ireland, intermediates, or hybrids between it and *V. palustris*, are to be found.—E.S.G.

V. odorata L., forma. (Ref. No. 1230). Lane, Beach, near Bitton, W. Glos., v.c. 34, April 21 and June 30, 1917. Lowest petal in some cases emarginate; peduncles with spreading hairs. —Ida M. Roper. I think probably my new variety of *V. odorata* —*rubra-purpurea.*—E.S.G. [Later] The particular characters of var. *rubra-purpurea*, as copied from my notes are: "Fls. rich red-

purple, very fragrant; stolons rooting, long and very slender." I see no reason why your Bitton plant should not belong there. The fl. colour fails to be convincing, of course.—E.S.G.

V. hirta L., var. *Foudrasi* (Jord.) (*fide* Mrs. E. S. Gregory). Open wood, Failand, near Bristol, N. Somerset, v.c. 6, April 19 and June 8, 1917.—Ida M. Roper. Agrees well with Mrs. Gregory's short description: plant small, glabrescent; flowers rather small, with a strongly-hooked spur.—E.S.M.

V. hirta × < *odorata* = × V. *superodorata.* Ref. No. 1203 (*fide* Mrs. Gregory). Hedgerow, Littleton-on-Severn, W. Glos., v.c. 34, April 23 and June 23, 1917.—Ida M. Roper. This suggests a double cross: *V.* (*hirta* × *odorata*) × *odorata.* The capsule seems to contain perfect seeds; the simple hybrid is, I think, normally sterile.—E.S.M. I have good reason to believe that in the genus Viola simple hybrids are capable of producing some fertile seeds. By this I do not wish to imply that Mr. Marshall's decision in this case is necessarily incorrect. Miss Roper's plant may prove to be a double cross.—E.S.G.

V. [*arvensis* Murr., var. *Lloydii* (Jord.)]. Plentiful in cultivated field of poor land at Sheringham, E. Norfolk, v.c. 27, Sept. 1917. —F. Long. This is *V. Curtisii* Forster, var. *Pesneaui* (E. G. Baker). Most of the specimens show the branching underground stems, though less abundantly than the Lancashire coast plants. This is probably due to the fact that they were not growing actually on sand dunes.—E.D.

Dianthus glaucus Huds. (1) Well established on limestone crags near Charterhouse on Mendip, N. Somerset, v.c. 6, June 15, 1917. (2) Form with entire petals, robust, taller and often branched stem, and more glaucous in colour than usual, growing with the normal plant, June 15, 1917.—H. S. Thompson.

Silene maritima × *latifolia*? Growing with the former in great variety about old lead-workings at Charterhouse on Mendip, N. Somerset, v.c. 6, June 14, 1917. Type specimens of *maritima* sent for comparison. *See* Salisbury in "New Phyt.", XI. p. 12 (1912).—H. S. Thompson. Probably the suggested hybrid. Nearer in habit to *S. latifolia*, but the small foliage, and especially the calyces, give good evidence of *S. maritima* parentage.—E.S M.

S. [*italica* Pers.]. Chalk cliffs, Kingsdown, Kent, v.c. 15, June 30, 1915.—H. E. Fox. This is clearly not *S. italica* Pers.,

which has a much longer carpophore, more cylindrical calyx, etc. It is *S. nutans*, the fruiting characters agreeing with the description given in "Journ. Bot.", 1918, p. 36.—C.E.S.

Lychnis alba × *L. dioica.* Cultivated ground, Freshwater, I.W., v.c. 10, June 1910.—H. E. Fox. Not very well dried, but it looks quite intermediate, and is apparently sterile.—E.S.M.

Arenaria serpyllifolia L., var. *viscidula* Roth (= var. *glutinosa* Koch). (**1**) Burnham sandhills, N. Somerset, v.c. 6, Aug. 20, 1917. Plant glandular; seeds kidney-shaped, granular.—H. S. Thompson. Yes.—E.S.M. Rouy and Foucaud ("Fl. Fr.") describe var. *viscidula* Roth "plante ord. plus petite," and Koch ("Syn." ed. 3) says that his var. *glutinosa* is "minor," but in spite of these observations, I believe Mr. Thompson's plant to be rightly named.—C.E.S. (**2**) (Ref. No. 299). Rough hilly pasture near Brendon, N. Devon, v.c. 4, Sept. 1, 1917. In some specimens the branches were long and slender, but the capsules were all ovoid and brittle. The distinction between *serpyllifolia* and *leptoclados* seems somewhat slight to justify separation as species.—W. C. Barton. This has the habit of *A. leptoclados*, and I incline to name it as the var. *viscidula* Rouy and Foucaud, of that. The capsules are very small for *A. serpyllifolia*, but more globose than is usual in *A. leptoclados*; so it may possibly be a starved state of the former. My specimens, received through the Bot. Exchange Club, are not so far advanced.—E.S.M. I believe this is not *viscidula* Roth (= *glutinosa* Koch), but a state of the type (*scabra* Fenzl.), having some glandular hairs. It seems to be the same as the plant described by A. H. Wolley-Dod from Flintshire (B.E.C. Rep., 1892, p. 357), but I have not seen specimens. Mr. Barton's plant has not the larger capsules, strongly-veined sepals, etc., of the variety. I notice that the ripe seeds here are under or up to ½ mm. long, whereas those from Mr. Thompson's Burnham plant are just over ½ mm. long, and rather darker in colour.—C.E.S.

Montia fontana L., subsp. *minor* Gmelin, var. *intermedia* Beeby. (Ref. No. 295). Rill below County Gate, N. Devon, v.c. 4, Sept. 15, 1917.—W. C. Barton. Yes, I think this is Beeby's *intermedia*. —C.E.S. This can hardly come under *M. minor* Gmelin, which is a small compact plant. The seeds are acutely tubercled, dark brown, rather shining. I do not know its proper name.—E.S.M. For description of Beeby's *intermedia* see "Ann. Scot. Nat. Hist.", 1909, p. 104.—I.M.R.

Elatine [*Hydropiper* L.]. Coron Lake, Anglesey, v.c. 52, July 4, 1917.—J. E. Griffith. No inflorescence is present; but it has the broad, sessile leaves of *E. hexandra*, and is certainly not *E. Hydropiper*, which I used to know well in Surrey.—E.S.M.

Hypericum Désétangsii Lam. Origin, near Lewes, Sussex, v.c. 13. Cult. Ledbury, July 24, 1917, from seed sent by C. E. Salmon. (*See* "Journ. Bot.", 1913, p. 317).—S. H. Bickham. This, I suppose, is the same thing as *H. maculatum* Crantz, var. *Babingtonii* H. & J. Groves (Babington's "Manual," ed. IX. p. 74) = *H. dubium* Leers, var. *maculatum* Bab.—E.S.M.

Malva [*parviflora* L.]. Field border, Queen Charlton, N. Som., v.c. 6, Oct. 6, 1917.—Ida M. Roper. Not the type, which has much larger fruit. It appears to be *M. microcarpa* Desf. This is reckoned by Rouy, "Fl. de France," IV. 39, 40, as a "forme" (between sub-species and variety). In my specimen the carpels are quite glabrous.—E.S.M. *Malva borealis* Wallm.—E.G.B.

Geranium Robertianum L. (Ref. No. 294). Wall at Oare, S. Somerset, v.c. 5, Sept. 4, 1917. All from one very large plant with a distinct look, but I can find no tangible character to separate it from type. Many plants in the district answered to the description of var. *rubricaule* Hornem., which seems to me no more than a form of exposed situations.—W. C. Barton. I see nothing to take this off the type.—E.S.M.

Ulex Gallii Planch., var. *humilis* Planch. (Ref. No. 297). Exposed ground, Shilstone Hill, near Brendon, N. Devon, v.c. 4, Aug. 31, 1917.—W. C. Barton. Yes. But is this a genuine *variety*? I do not know the living plant; there seems, however, to be no definite character, apart from its habit, which exposure, or browzing, or both, would account for.—E.S.M.

Medicago sativa L. Two colour forms. (1) Flowers pale yellow. (2) Flowers very dark violet, tinged with green, and looking black at a distance. Sandy enclosure at Burnham, N. Somerset, v.c. 6, July 2, 1917. (*See* "The Garden," Sept. 1, 1917).—H. S. Thompson. The cream-coloured variation of flowers is new to me. The foliage, also, looks paler than usual; a case of albinism?—E.S.M.

Lotus corniculatus L., var. *crassifolius* Pers. Burnham Sandhills, N. Somerset, v.c. 6, Aug. 20, 1917.—H. S. Thompson. Yes; but it would probably revert at once to type if grown inland.—E.S.M. My sheet contains good examples of the glau-

cescent ± fleshy-leaved plant that we call *crassifolius*. Persoon's original description of his variety ("Syn." II. 354, 1807) reads: "pilosus, foliol. ovatis carnosulis, caulib. foliosis prostratis, radice crassa fibrosa," and we might expect from that a more hairy plant than Mr. Thompson's. Rouy ("Fl. Fr.") amends and enlarges the description of "var. *crassifolius* Ser. ap DC." (with Persoon's name as a synonym), and states that the plant may be glabrescent or ± hairy, and mentions that the stipules are narrower ("ovales-lancéolées") than in type *corniculatus*. This feature I am unable to see in my specimens. In 1898 Mr. C. Waterfall sent in examples labelled var. *crassifolius*, from sandy ground, Spurn Head (*see* Report, 1898—99, p. 7), which were then referred to var. *villosus* Ser. My specimens of this gathering seem to be the same as Mr. Thompson's plant. Rouy (l.c.), it will be noted, places *L. corniculatus*, var. *villosus* Ser. as a synonym of *L. uliginosus*, var. *villosus* Lamotte.—C.E.S.

L. tenuis Waldst. & Kit. One large *prostrate* plant on waste ground, Cranbrook Rd., Bristol, W. Glos., v.c. 34, Aug. 5, 1917. As Miss Roper points out, this agrees with *L. pedunculata* Caven in its longer length, in being decumbent, and in the larger number of flowers, but not in other respects. The peduncles averaged five times the length of the leaflets.—H. S. Thompson. Right.—E.S.M. Surely a very slender form for *tenuis*.—A.B.

Vicia tenuifolia Roth. Near old Park Farm, Bosham, W. Sussex, v.c. 13, June 24, 1917.—R. J. Burdon. Yes.—H.S.T.

Prunus insititia L. Gt. Wymondley, Herts., v.c. 20, April 23, 1916, July 1 and Aug. 31, 1917. A small thicket of shrubs about 10 feet high. Bark dark brown. Branches straight, somewhat spinescent. Summer shoots pubescent. Leaves: petiole about 15 mm. pubescent; lamina somewhat obovate, obtusely pointed 6 × 4 cm., pubescent all over beneath, finely serrate. Peduncle (April) pubescent. Drupe (Aug. 31) egg-shaped, averaging 27 mm. × 18 mm., purple, with a bloom on the cuticle. I add particulars of some other gatherings of the present year, which has been a good one for the observation of *P. insititia* and allied forms.

(**2**) *P. insititia* L. Hoyle, nr. Heyshott, W. Sussex, v.c. 13, Sept. 15, 1917. Drupe globular 23—24 mm., yellow. Branches dark brown, only slightly spinescent.

(**3**) *P. insititia* L. S. of Old Park Wood, Fishbourne, W. Sussex, Sept. 17, 1917. Drupes 24 × 22 mm. and 22 × 20 mm.,

black, pendulous. Bark brown. Leaves pubescent beneath. Branches somewhat spinescent. Locally called Wild Damson.

(4) *P. insititia* L. Sidlesham, W. Sussex, Sept. 12, 1917. Leaves pubescent beneath, serrations rather acute. Drupe 19 mm., globular, black, erect or pendulous.

(5) *P. insititia* L. ? Sidlesham, W. Sussex, Sept. 12, 1917. Leaves pubescent beneath. Drupe 16 mm., globular, black, erect or pendulous. A shrub intermediate between typical *P. spinosa* and *P. insititia*, showing that the erect or pendulous character of the fruit is determined by its weight. Young *P. spinosa* leaves may have the under side of the lamina well covered with pubescence, which is lost as the leaf becomes mature.—J. E. Little.

P. Padus L. Beechamwell Fen, W. Norfolk, v.c. 28, July 30, 1917. Coll. J. E. Little and Anna Luddington. (*See* note on *Alnus glutinosa*).—Comm. J. E. Little.

Rubus integribasis Rogers (non P. J. Muell.). Norden Heath, Corfe Castle, Dorset, v.c. 9, Aug. 5, 1916. Coll. Mary A. Rogers. Comm. W. Moyle Rogers. (*See* Wats. B.E.C. Rept., 1915—16, pp. 532, 533).

R. argenteus Wh. & N., forma. Durdham Down, Bristol, W. Glos., v.c. 34, July and Sept. 1917.—J. W. White. Yes, *R. argenteus* Wh. & N. It exactly matches my S. Wales specimens, except that the terminal leaflet is rather shorter and less *cuspidate* at point.—H.J.R.

R. Scheutzii Lindcb. Near Midhurst (Moorland, Petersfield Road), W. Sussex, v.c. 13, Aug. 1914. Coll. F. A. Rogers and W. Moyle Rogers. Its only Sussex locality known to me.—W. Moyle Rogers.

R. dumnoniensis × *rhamnifolius*. Near Midhurst, W. Sussex, v.c. 13, July 31, 1914. Coll. F. A. Rogers and W. Moyle Rogers. Comm. W.M.R. This looks like a hybrid. If it is so it certainly has *dumnoniensis* in it strongly. Clearly, I think, the hybrid suggested.—W.M.R. . A very good intermediate.—E.S.M.

R. Lindebergii P. J. Muell (*fide* W. Moyle Rogers). Bush on the roadside opposite Watermillock Church, Cumberland, v.c. 70, Aug. 13, 1917.—S. H. Bickham.

R. lacustris Rogers (*fide* W. Moyle Rogers). Coppice at Glencoign, W. bank of Ullswater, Cumberland, v.c. 70, Aug. 6, 1917. —S. H. Bickham.

R. mercicus Bagnall, var. *chrysoxylon* Rogers. Nant Offeren, Bangor, Carnarvonsh., v.c. 49, July 6, 1916.—J. E. Griffith. Yes, though panicle not so good as those collected by Mr. Griffith last year.—H.J.R.

R. [*thyrsoideus* Wimm. ?]. Heath Drove, Nailsea, N. Somerset, v.c. 6, July 25, 1917.—J. W. White. *R. hirtifolius* Muell. & Wirtg. Stem here frequently nearly bare, but in some cases normally hairy.—H.J.R.

R. thrysoideus Wimm., var. *viridescens* Rogers, M.S. (1) Tackbear, Bridgerule, N. Devon, v.c. 4, Aug. 12, 1882.—T. R. Archer Briggs and W. Moyle Rogers. (2) Goonhavern to Penhallic Water, Newquay, W. Cornwall, v.c. 1, July 1898.—W. Moyle Rogers. (3) Perranzabuloe, W. Cornwall, v.c. 1, Oct. 23, 1907.—Wm. Tresidder. All communicated by W. M. R. The closeness of the connexion with type seems to be established especially by the combination of the strong deeply-furrowed glabrous stem with the comparatively short curved prickles and showy flowers of the panicle. It is, however, considerably unlike in habit and coloration, besides having leaflets narrower and soon bare beneath, with panicle (when fully developed) considerably branched and purplish petals. From *R. rusticanus*, towards which it takes a step from type, it may be readily distinguished by its epruinose stem, its more compressed prickles and longer stamens; and from my *R. Briggsianus*, which at first sight it recalls, by its sulcate stem and short curved panicle-prickles, as well as by its different leaves, greyer sepals and purplish petals.—W. Moyle Rogers.

R. Godroni Lecoq. & Lamotte. Rowberrow Bottom, Mendip, N. Somerset, v.c. 6, July 30, 1917.—Ida M. Roper. "*R. Godroni* aggr., not quite *robustus*."—H.J.R. "I agree in putting this under our difficult aggregate *Godroni*—nearer, I suppose, to our var. *robustus* than to our type (?) *Godroni*."—W.M.R. These notes were written on specimens gathered in 1916, and Mr. Riddelsdell now remarks that he still thinks so.—I.M.R.

R. hirtifolius Muell. & Wirtg. Nailsea Moor, N. Somerset, v.c. 6, July 20, 1917. New county record.—Ida M. Roper. Weak form, I suppose, with mostly 3-nate leaves; panicle very young and undeveloped, and in other respects abnormal. I do not think a hybrid. But in the absence of collector's notes this rather unsatisfactory material is not absolutely convincing.—H.J.R. There is no doubt that *hirtifolius* grows in this locality, because that plant was sent by Mr. White, though under the name of *thyrsoideus*.—I.M.R.

R. [*hirtifolius* Muell. & Wirtg., var. *mollissimus* Rogers]. Goradgid, Bangor, Carnarvonsh., v.c. 49, Aug. 1917.—J. E. Griffith. Except one panicle of *rhamnifolius*, this gathering must be, I think, a very weak shade form of *R. Godroni* Lec. & Lam. The prickles are extremely weak, but the shape of the leaf is that of *Godroni*. The material, however, is poor and unsatisfactory, at any rate to me.—H.J.R.

R. mucronatus Blox., var. *nudicaulis* Rogers. Branksome Park, Dorset, v.c. 9, Aug. 22, 1917. Though it is locally abundant in S.W. England, extending northwards to Swallowcliff (S. Wilts.) and eastwards to Marvel Copse, near Newport (I. Wight), the distribution of this bramble seems remarkably limited, and I have not found it in Sussex, Somerset, Devon or Cornwall. Probably enough it occurs in all four counties. In Dorset and S. Hants it is frequent and constant, to the apparent exclusion of typical *R. mucronatus* Blox., from which it seems to keep distinct.—W. Moyle Rogers.

R. anglosaxonicus Gelert (aggr.). Hillside, Clapton-in-Gordano, N. Somerset, v.c. 6, July 11 and Aug. 9, 1917.—J. W. White. *R. dumetorum* Wh. & N., var. *diversifolius* (Lindl.)—H.J.R. It having been pointed out by Mr. Riddelsdell that a portion of my gathering belonged to a *dumetorum* plant, such admixture has been rejected. The specimens now distributed correspond, I believe, with those originally named by Mr. Moyle Rogers.—J.W.W.

R. radula Weihe, subsp. *anglicanus* Rogers. Branksome Park, Dorset, v.c. 9, Aug. 22, 1917. Weak, otherwise quite characteristic as representing the plant which is so abundant in Hants. and Dorset. Collected in an unfavourable season.—W. Moyle Rogers.

R. Griffithianus Rogers. Waterloo Path, Bangor, Carnarvonsh., v.c. 49, July 30, 1916.—J. E. Griffith. Specimen defaced, but no doubt *R. Griffithianus*, with exceptionally broad panicle.—H.J.R. (*See* Rept. B.E.C. 1895, p. 479).—I.M.R.

R. mutabilis Genev., var. *Naldretti* J. W. White. Roadside hedge, near Storrington, W. Sussex, v.c. 13, July 6, 1917. (*See* Rept. Wats. B.E.C. 1906).—J. W. White.

R. Bloxamii Lees. Near Milton, S. Hants., v.c. 11, Aug. 1917; West Cliff, Bournemouth, S. Hants, Sept. 7, 1909; Branksome Park, Dorset, v.c. 9, June 26, 1915.—Mary A. and W. Moyle

Rogers. St. Mary's Common, Bournemouth, June 28, 1894.—F. A. Rogers. I have seen specimens from about 20 English v.c., and found it growing abundantly in Guernsey. It also occurs in Co. Down, and at least one or two other Irish counties. A common, strong and well-marked bramble between Bournemouth and the New Forest, S. Hants., in S. & E. Dorset, and in S. Wilts.—W.M.R.

R. fuscus Wh. & N., var. *nutans* Rogers. Near Ashley, Milton, S. Hants., v.c. 11, Aug. 11, 1917.—Coll. L. Cumming. Comm. W. Moyle Rogers.

R. rosaceus Wh. & N. [?]. Near Llangifni Church, July 1917.—J. E. Griffith. Agrees closely with *R. melanoxylon* Muell. & Wirtz., except in cordate base of terminal leaflet and its longish stalk; panicle rachis pale. I can get no nearer than this. The stem pieces and the largest panicle belong to one plant, but do the other two panicles? I fear there is mixture again.—H.J.R.

R. Marshalli Focke & Rogers. (1) Penhoiver Road, near Bangor, Carnarvonsh., v.c. 49, July 1917.—J. E. Griffith. *R. Marshalli* Focke & Rogers, var. *semiglaber* Rogers.—H.J.R. (2) Peas Pottage, N.E. of Horsham, W. Sussex, v.c. 13, July 30, 1900.—J. W. White.

R. [*dumetorum* Wh. & N., var. ? *britannicus* (Rogers)]. Hedge, Tockington Hill, W. Glos., v.c. 34, June 23, 1917.—Ida M. Roper. *R. Balfourianus* Blox. I have it already from Pauntley, v.c. 34.—H.J.R. New record for the Gloster division of the Bristol district.—I.M.R.

R. corylifolius Sm., var. *sublustris* Lees. Wiggonholt Common, W. Sussex, v.c. 13, July 4, 1917.—J. W. White. I agree.—H.J.R.

R. ——— (No. 1). Friddœdd Road, Bangor, Carnarvonsh., v.c. 49, Aug. 1917.—J. E. Griffith. Two sheets of *R. incurvatus* Bab. (they were separated and made up by me). The other three sheets (made up of two stem-pieces and five panicles) are, I believe, *R. Lindleianus* Lees.—H.J.R.

R. ——— (No. 2). Llanddona, Anglesey, v.c. 52, Oct. 1917.—J. E. Griffith. Very late gathered; but though some of the characters have disappeared, and there are no notes, I am pretty sure that this too is *R. pulcherrimus* Neum.—H.J.R.

R. ——— (No. 3). Siliwen, Bangor, Carnarvonsh, v.c. 49, June 1917.—J. E. Griffith. The bulk of this gathering (including all the panicles) is *R. pulcherrimus* Neum. A number of stem-pieces, which either are, or probably are, something else, have been separated and put by themselves. But I could not certainly say that every stem-piece left with the panicles comes from the same bush, or belongs to *R. pulcherrimus*.—H.J.R.

R. ——— (No. 4). Brynmeirion, Bangor, Carnarvonsh., v.c. 49, July 1917.—J. E. Griffith. Poor material. I should think *R. dumetorum* Wh. & N., and not far from *R. diversifolius* Lindl., but I cannot be sure.—H.J.R.

Rosa dumetorum Thuill., [var. *platyphylla* Rau.]. Mountstewart, Co. Down, v.c. 38, Aug. 17, 1914. (*See* Rept. 1915—16, p. 537). —C. H. Waddell. To what I said before regarding this plant I have only to add that Rau appears to have had in view one distinguished by large broad leaflets and with ovoid fruit. In the present specimen the fruit is not ovoid, and the leaflets are not large and broad.—W.B. I cannot imagine that I ever said this was *R. platyphylla* Rau. The leaflets are nothing like large or broad enough, and I fear there must have been some mixture, or more probably that this specimen does not come from the same bush. It is either *R. dumetorum* Thuill. by its globose fruit, or better, *R. semiglabra* Rip., which is very near *R. urbica* Lém.—A.H.W-D.

R. glauca Vill. (group *fugax* Gren.). Bank of River Almond, Mid-Perthsh., v.c. 88, Sept. 15, 1917. This variety of *R. glauca*, distinguished from the type chiefly by its composite glandular serration, its glandular petioles, peduncles and backs of sepals, belongs to the same group of variations as Grenier's *R. fugax*, though it may not be identical with that particular form. It is not very common.—W. Barclay. Certainly *R. fugax* Gren. is the nearest name of any in our list.—A.H.W-D.

R. stylosa Desv., var. Lyncomb Hill, Sandford, N. Somerset, v.c. 6, Aug 20, 1917. The leaves and stipules, as well as the styles, seem too hairy for var. *systyla*, which it resembles.—Ida M. Roper. I cannot make anything of this except *R. stylosa* Desv., var. *systyla* Bast.—W.B. I see no hairs on the styles, and *R. systyla*, to which it belongs, often has leaflets more hairy.—A.H.W-D.

R. [*cinnamomea* L.]. Undercliff, Kingsdown, Kent, v.c. 16, June 28, 1915. Apparently indigenous.—H. E. Fox. This is

not *R. cinnamomea* L. It is a variation of *R. pomifera* Herm., and as it has a certain number of subfoliar glands it might be considered as *R. pomifera* Herm., f. *recondita* Christ ("Rosen der Schweiz") = *R. recondita* Puget in Déséglise "Revis. sect. Toment.", 46. In my opinion *R. pomifera* in any of its forms is not indigenous in Britain.—W.B. I quite agree with Mr. Barclay. This cannot be native in the station cited, but of course may be bird-sown from a garden.—A.H.W-D.

Pyrus latifolia Syme. (Ref. No. 284). Wood above Watersmeet, E. Lyn Valley, N. Devon, v.c. 4, Aug. 25, 1917.—W. C. Barton. Yes; slightly tending towards var. *decipiens*, but best left under the type.—E.S.M.

P. latifolia Syme, var. *decipiens* (Bechst.) E. & H. Wood above Watersmeet, E. Lyn Valley, N. Devon, v.c. 4, Aug. 25, 1917.—W. C. Barton. Just like the Minehead plant —E.S.M. This agrees well with the figure and description in "Eng. Bot.", suppl. 165 (1892), where it bears the name *P. rotundifolia* Bechst., var. *decipiens* N.E. Br.—C.E.S.

P. Pyraster L., var. *Déséglisei* Rouy & Camus (*P. cordata* Dégl., non Desv.). Border of wood between Rangeworthy and Wickwar, W. Glos., v.c. 34, Sept. 6, 1917. I take this to be the aboriginal wild pear of the country, which I have only once before seen—in the Wye valley—and then it had not flowered. The largest of the three trees found near Rangeworthy, from which these specimens were taken, has a girth of over four feet, and is about forty feet high, with a spread of thirty feet. Its age probably dates from a period prior to the enclosure of the district in which it stands. In characters it agrees well with those of *Déséglisei* so far as given by Rouy and Camus, the fruit being globular, about the size of a large cherry (diam. 20–25 mm.), on long, erect-patent stalks. Obviously it is a very different plant from the *P. cordata* Desv. (named *Briggsii* by Syme) of which Mr. Briggs sent me a specimen from Plymouth in 1881. That has tiny pyriform fruit, attenuate at the base, "au plus de la grosseur d'une petite noisette" (Rouy), and is well described by Boreau, "Fl. du Centre," where I find no mention of the form under notice. Rouy and Camus hold, however, that Boreau's description covers several of their varieties. *P. Déséglisei* appears to be on record only from Cher in Central France.—Jas. W. White. I think that this is probably a distinct species; it is quite different from *P. cordata* Desv. in fruit-character, and the leaves are more parallel-sided.—E.S.M.

Cotoneaster integerrima Medic. Originally from Great Orme's Head, Carnarvon, v.c. 49 (S. H. Bickham). Garden, West Monkton, May 11 and July 9, 1917. The wild plant seems to have become very scarce; I only saw two or three stunted shrubs in 1912. Mr. Hunnybun has made a drawing from material taken from this bush. Babington describes the petals as being "rose-coloured"; but in this case, at least, they were dull white, with no trace of red.—Edward S. Marshall.

Saxifraga Sternbergii Willd. (Ref. No. 3649). Root, 1911, from near the summit of Brandon Mountain, S. Kerry, v.c. 1. Cult. garden, West Monkton, May 31, 1917. This is the typical plant, agreeing well with Sternberg's figure (drawn from a cultivated specimen) and with Panzer's original material in Smith's herbarium.—Edward S. Marshall.

S. rosacea Moench. (1) (Ref. No. 3670). Originally from Snowdon, Carnarvonsh., v.c. 49, gathered (as "*S. caespitosa*") by a guide named Williams, from whom Mr. S. H. Bickham had it. Cultivated for a good many years at West Monkton; fl. May 22, 1917. This well matches the specimens in Smith's herbarium of *S. decipiens* Ehrhart, Exsiccata, No. 5 (*S. palmata* Sm.). Unfortunately the name *decipiens* has to be dropped, as it was not described.—E. S. Marshall. (2) (Ref. No. 4031). Root from Clare Island, W. Mayo, v.c. 27 (R. Lloyd Praeger). Cult. West Monkton, May 5 and 16, 1917. This differs slightly from the Welsh form (No. 3670), but comes very near it indeed.—Edward S. Marshall.

S. hirta Sm.! (Ref. No. 3901). Root from Brandon Mountain, S. Kerry, v.c. 1, 1911. Cult. garden, West Monkton, May 22, 1917. In my opinion this is a good species, allied to *S. rosacea* (*decipiens*), but differing in manner of growth, foliage, calyx, petals, etc.; it flowers later, in cultivation.—E. S. Marshall.

S. hypnoides L., n. var. (*robusta* ined.). (Ref. No. 4033). Root from West Ireland, on limestone (R. Ll. Praeger; received through Mr. E. W. Hunnybun); probably from Black Head, Co. Clare, v.c. 9, as I have a wild specimen, gathered there, which is clearly the same thing. Cult. garden, West Monkton, May 29, 1916, and May 31, 1917. Much stronger than the typical plant from Cheddar, grown under the same conditions. Axillary buds either absent or rudimentary. Stems stouter, stiffer, as are the lower cauline leaves. Flowers mostly larger.—Edward S. Marshall.

Ribes rubrum L., var. *sativum* (Reichb.). Bushy bank of the River Ile, near Ilminster, S. Somerset, v.c. 5, April 30, 1917. Most likely bird-sown.—Edward S. Marshall.

Sedum sexangulare L. Walls at Burrington, N. Somerset, v.c. 6, July 25, 1917. First seen in this new locality on June 11 by H. W. Pugsley with the contributor.—H. S. Thompson.

Callitriche truncata Guss. (Ref. No. 4409). Bridgewater and Taunton Canal, at Charlton (parish of Creech St. Michael), S. Somerset, v.c. 5, July 17, 1917. Fruit either sessile or shortly stalked.—Edward S. Marshall.

Œnothera odorata Jacq. Burnham Sandhills, N. Somerset, v.c. 6, July 2, 1917. A Patagonian species, first recorded from Burnham in 1859 by Thos. Clark, jun.—H. S. Thompson.

Circœa lutetiana L., var. *cordifolia* Lasch. (Ref. No. 293). Edge of plantation near Wooda Bay, N. Devon, v.c. 4, Sept. 12, 1917.—W. C. Barton. Yes, so I should say. (*See* Rept. 1913—14, p. 446).—C.E.S.

Lonicera Xylosteum L. (Ref. No. 307). Amberley, W. Sussex, v.c. 13, June 15, 1917.—W. C. Barton. Mr. W. W. Reeves, about thirty years ago, told me that he believed this to be a true native, near Amberley. The European distribution favours its being so in S.E. England.—E.S.M.

Galium verum L. Robust woody growth, averaging 2 ft. 3 in. high (one 2 ft. 11 in. high). Roadside on Mendip plateau, at 850 ft., N. Somerset, v.c. 6, July 21, 1917.—H. S. Thompson.

G. verum L., [var. *maritimum* DC.]. Burnham Sandhills, N. Somerset, v.c. 6, Aug. 20, 1917. It flowers later than the ordinary form.—H. S. Thompson. This does not agree very well with De Candolle's description. It may be the var. *littorale*, Brébisson, but (in any case) is hardly more than a *state*, due to local conditions.—E.S.M. In spite of the situation, I believe the examples sent me are better left under type *verum*. "La variété β [*maritimum*], qu'on trouve dans les sables maritimes, ne s'élève pas au-delà de 1 décim., et a le haut de la tige très-velu." (Lam. et DC., "Fl. Fr." IV., 249, 1815). "Var. c. *littorale*.—Tiges basses et couchées. Fl. en panicules courtes et peu fournies. Sables maritimes." (Brébisson, "Fl. Norm." 180, 1879). These two varieties are evidently identical, and differ from Mr. Thompson's plant in being more low-growing and having shorter panicles, smaller fruit, etc.—C.E.S.

G. Mollugo × *verum* (var. or hybrid *ochroleucum* Syme non Kit.) = *G. vero-mollugo* Wallr. (1) Near the supposed parents at Beggar's Bush Lane, Failand, N. Somerset, v.c. 6, July 21, 1917. (*See* "Fl. of Bristol," p. 356).—H. S. Thompson. Yes; nearer to *G. Mollugo*.—E.S.M. (2) Hayling Island, Hants., v.c. 11, July 2, 1917.—R. J. Burdon. A small form of the hybrid, on the *verum* side.—E.S.M. One hesitates to criticize the naming of a hybrid, as the gatherer always has the better opportunity of arriving at the truth, but the examples on my sheet look far nearer *verum* in habit, foliage and panicle than anything else. There is no note as to colour of flowers, and even if these were pale, one must not forget that there is a var. *ochroleucum* Fries, of *verum*, besides the hybrid!—C.E.S.

Achillea Millefolium L., [var. *lanata* Koch]. (Ref. No. 288). Edge of cornfield, Countisbury Common (1000 ft.), N. Devon, v.c. 4, Sept. 8, 1917.—W. C. Barton. Not var. *villosum* Hartman (an older name). That is a dwarfer, stouter, woolly form, which I have only seen from the extreme north of Scotland. Mr. Barton's specimens are not separable from the type.—E.S.M.

Carduus crispus L., var. *polyanthemos* (Koch). Bank of Avon, Saltford, N. Somerset, v.c. 6, Aug. 6, 1917.—Ida M. Roper. In his second and best edition of the "Synopsis" (1844), pp. 459, 460, Koch gives this—as a species—under the name *C. multiflorus* Gaudin = *C. polyanthemos* Schleicher, exs., Tenore, "Sylloge." It is the *C. crispus* L., *β. multiflorus* DC., "Prodromus," IV. 624 (1837). Koch describes it as having the leaves villous or arachnoid, woolly beneath, deeply pinnatifid; the pinnae ovate, subpalmate-trifid and dentate, ciliate-spinose, the lobes and teeth ending in a stronger spine; heads ovate, 3 to 5 in a cluster; peduncles short, curly (crispatis), spinous; achenes very finely striate longitudinally. With this Miss Roper's specimen agrees rather well (the seed-striation is evident). Koch remarks that the Linnean description of *C. polyanthemos* ("Mantissa," p. 109) fits the species remarkably; but he rejects the name in favour of Gaudin's, as having become ambiguous. Rouy's *C. crispus, β. polyanthemos*, which he says (*l.c.* IX. 78) is not the Linnean plant, and describes as having the leaves "vertes sur les deux faces," must be something else.—E.S.M.

Cirsium palustre Scop., var. *ferox* Druce (ipso teste). (Ref. No. 296). Countisbury, N. Devon, v.c. 4, Sept. 14, 1917.—W. C. Barton. Very striking; analogous to *C. arvense* Scop.,

var. *horridum* Wimm. & Grab. = var. *ferox* Hartman, as described by Rouy, "Fl. Fr.", IX. 66.—E.S.M. This seems to agree with Rouy's ("Fl. Fr.") description of var. *spinosissimum* Willk. "Feuilles et ailes des tiges très épineuses, à épines très nombreuses, plus longues que dans *α.* [*genuinum* G. & G.] and *β.* [*putatum* Naegeli]; calathides agrégées en glomérules compacts."—C.E.S.

Hieracium Pilosella L., var. *concinnatum* F. J. Hanb. Burrington Combe, N. Somerset, v.c. 6, June 18, 1917.—Ida M. Roper. Dwarf; heads and peduncles with dense stellate pubescence (cano-floccose), black-glandular, epilose. Quite characteristic.—E.S.M.

H. lima F. J. Hanb. Limestone rocks at Cheddar, N. Somerset, v.c. 6, May 9, 1917. Its only known station?—H. S. Thompson.

H. ——— Railway cutting near Snow Tunnel, Rannoch, Mid Perthsh., v.c. 88, July 26, 1916.—R. J. Burdon. *H. euprepes*, var. *glabratum*.—E.S.M.

Sonchus oleraceus L., var. *glandulosus* Coss. & Germ. (Ref. No. 287). Cultivated ground about Brendon, N. Devon, v.c. 4, Aug. 15, 1917.—W. C. Barton. Yes; but under Cosson and Germain's arrangement this stands as *S. oleraceus* L., var. *α. runcinatus* C. & G., sub-var. *glandulosus* C. & G.—C.E.S.

S. asper Hill, var. *glandulosus* (Coss.). (Ref. No. 286). Cultivated ground about Brendon, N. Devon, v.c. 4, Aug. 15, 1917.—W. C. Barton. Yes; but to quote Cosson and Germain correctly this would be *S. asper* Hill, var. *vulgaris* C. & G., sub-var. *glandulosus* C. & G.—C.E.S.

Primula vulgaris Huds., var. *caulescens* Koch. Canons Wood, Walton-in-Gordano, N. Somerset, v.c. 6, May 14, 1917.—Ida M. Roper.

Centaurium [*umbellatum* Gilib., var. *capitatum* Druce]. Wych Heath, Corfe, Dorset, v.c. 9, Aug. 10, 1917.—Ida M. Roper. No; a small state of *C. pulchellum* Druce (*Erythræa pulchella* Fr.).—E.S.M. No; this must be *E. pulchella*, f. *contracta* Wittr.—C.E.S.

Symphytum orientale L. Cultivated at Clifton by C. Bucknall, Esq., June, 1917.—J. W. White.

S. grandiflorum DC. (= *S. ibericum* Stev.). Cultivated in the garden of Bristol University, June 1917. A native of the Caucasus, Turkey and Armenia, and so little known to botanists that it had not been identified in either of the Botanic Gardens (at Geneva, Cambridge and Bristol) in which Mr. Bucknall found it growing. It is an interesting plant, inasmuch as it is the only known Comfrey that produces decumbent barren shoots. The name *grandiflorum* does not strike one as appropriate, the inflorescence being comparatively inconspicuous and unattractive. Still, the measurements given by Bucknall in his "Revision" show that the corollas may reach 22 mm. in length against 17 mm. assigned as a limit to those of *S. officinale*.—Jas. W. White.

Lithospermum officinale L. Gravelly soil, roadside, Kelling, E. Norfolk, v.c. 27. Nutlets perfectly white, a state which Mr. Bennett had never seen before. There were a great many plants altogether, and they presented a very picturesque appearance at the side of the road. A fortnight afterwards the nutlets had become partly brown.—F. Long. Although by book descriptions the nutlets should be white, yet in nearly all the specimens of this plant I have the nutlets show the brownish tint mentioned by Dr. Long, and which is so well marked on his examples. I conclude this colouring must be a normal condition.—C.E.S.

Solanum nigrum L., var. *miniatum* (Bernh.). Origin, Quenvais, Jersey (W. R. Attenborough). Cultivated at Ventnor by E. W. Hunnybun, who sent it fresh, Sept. 8, 1917. Comm. S. H. Bickham. Right; perhaps a distinct species, or sub-species.—E.S.M. The remarkable toothing of the leaves seems as good a distinguishing character of this interesting plant as the red berries.—C.E.S.

Linaria purpurea Mill. Waste ground, Kingsdown, Kent, v.c. 16, June 26, 1915.—H. E. Fox.

Euphrasia Rostkoviana Hayne. (1) (Ref. No. 151). Wet ground (at 800 ft.), Arthog, Merionethsh., v.c. 48, Aug. 5, 1915 (*fide* C. Bucknall).—W. C. Barton. (2) (Ref. No. 155 B). Dry ground, Dolgelley, Merionethsh., v.c. 48, Aug. 9, 1915.—W. C. Barton. Correct.—E.S.M. & E. & H.D.

E. fennica Kihlman. (Ref. No. 277). Above Myrtleberry Cleave, E. Lyn Valley (800 ft.), N. Devon, v.c. 4, Aug. 21, 1917. Mr. Bucknall and Mr. Drucc assent. Quite distinct in appearance when fresh from *Rostkoviana*, of which at first I thought it a

variety, and still think the differences insufficient to constitute a species. On this slope no other form occurred, whether in the open or among bracken. But I found plants which Mr. Bucknall agrees must go to *fennica* in several stations within a few miles (one on the Somerset side of the R. Lyn), generally in company with *Rostkoviana* and *nemorosa*. Mr. Druce's station, I understand, was on the southern side of Exmoor in Somerset. New County record.—W. C. Barton. Not nearly so strong as Mr. Druce's original Exmoor gathering, but similar in other respects. The glandular hairs are weaker than in *E. Rostkoviana*, less shining, and (at least under a lens) not jointed. Capsules *deeply* notched, instead of truncate or slightly emarginate.—E.S.M. I do not think we know *E. fennica* sufficiently well in this country to name these plants with certainty.—E.D.

E. stricta Host. Upper Barpham Down, W. Sussex, v.c. 13, Sept. 14, 1917.—Coll. J. E. Little and C. W. Little. Comm. J. E. Little. Yes, *stricta*, I believe, but some of the specimens with lax spikes and spreading branches approach *E. nemorosa*.—C.B. Poorly selected and dried; but it looks right.—E S.M. Our specimens are decidedly *nemorosa*, var. *ciliata*.—E. & H.D.

E. ——— Eastwood, S. Essex, v.c. 18, Aug. 1917.—W. R. Sherrin. *E. nemorosa* H. Mart.—C.B. *E. stricta* Host, I think. —E.S.M. We think this must be called *nemorosa*. It branches high up the stem, the lower branches are spreading and the flowers are small, but it certainly approaches *stricta* in the spike. —E. & H.D.

Mentha rotundifolia Huds., var. *Bauhini* Ten. Cultivated in garden from the original plant, which I first found near Hindringham, Norfolk, in 1885. From the richer soil the stems are somewhat weaker.—F. Long.

M. aquatica L., var. *subglabra* Baker. Hedgebottom, Moorend, W. Glos., v.c. 34, Sept. 15, 1917.—Ida M. Roper. This seems correct; the shiny leaves, etc., indicate a departure from the type.—A.B.

Thymus Serpyllum L. (1) Roadside near Failand, N. Somerset, v.c. 6, Aug. 7 and Sept. 3, 1917. On carboniferous limestone.—H. S. Thompson. *T. ovatus* Mill, var. *subcitratus* Beck.—A.B.J. (2) Penpole Point, near Bristol, W. Glos., v.c. 34, July 19, 1917. On carboniferous limestone.—H. S. Thompson. On the rather unsatisfactory material furnished, this appears to be correct.—A.B.J.

Prunella laciniata L. Rough pasture above Cheddar, N. Somerset, v.c. 6, July 28, 1917, after a horse had apparently "cropped" many of the plants. Very variable in form of leaf and colour of flowers, evidently hybridising with *P. vulgaris*. The pale yellow flowers predominate, but some were pale bluish-purple, and a few had the upper lip pale purple and the lower lip pale yellow.—H. S. Thompson. The plants on my sheet have pale yellow flowers. In one case the calyces are almost entirely purple; in all they are so towards the tips. This may, of course, be merely due to an exposed position on rocky soil.—E.S.M. The specimens on Mr. Thompson's sheets that vary in flower-colouring to tints of bluish-purple have in general sub-entire leaves, a combination suggestive of hybridity with *P. vulgaris*. Such variations are mentioned in "Fl. Brist.", p. 478, and the idea that they are hybrids is there rejected for reasons given. Still, at my request, Mr. Bucknall has carefully dissected the flowers of these recent examples, and finds that my previous conclusion is confirmed by microscope. On comparing stamens and calyces with those of typical *laciniata* no marked deviation can be recognised, the subulate prolongation of the longer filaments and the calyx-teeth ciliation being practically identical. I venture the opinion that it is most doubtful if the characters relied on in the description of *P. intermedia* Link (*laciniata* × *vulgaris*), quoted in "Rep. Watson Ex. Club," 1913—14, p. 454, are really sufficient. They apply far too accurately to *P. laciniata*, and so lack diagnostic value. Continental specimens of *P. laciniata*, with leaves divided as well as sub-entire, have reached us under the names var. *pinnatifida* Briquet and var. *subintegra* Hamilton respectively, corresponding doubtless to the α and β of Godron and Koch in the "Flore de France." Mr. Bucknall and I consider that this arrangement may well suit Mr. Thompson's gatherings. As stated by the collector, the bulk of his contribution had been damaged by grazing, and so could not satisfactorily represent this rare Labiate in any herbarium. Surely it would have been wiser, in view of the plant's scarcity, to have allowed such roots to remain undisturbed until they produced acceptable specimens later on.—J.W.W.

Stachys palustris L. Bank of canal, Edington, N. Somerset, v.c. 6, July 13, 1917. Form with narrow leaves.—Ida M. Roper. This is a variable species.—E.S.M.

Plantago major L., [var. *nana* Tratt.]. (Ref. No. 325). Cart track on Countisbury Common (at 1000 feet), N. Devon, v.c. 4, Sept. 13, 1917. The only form in the near neighbourhood.

Trattinick, "Archiv. d. Gewächskunde," t. 42 (not 23 as Rouy states), gives two figures, "one of the largest and one of the smallest plants." The larger depicts a plant of diam. 9 cm. with leaves 2 cm. broad and 5-nerved, spikes $1\frac{3}{4}$—2 cm. long; the smaller a plant of diam. $2\frac{3}{4}$ cm. with leaves $1\frac{1}{2}$ cm. long and 3-nerved, spikes $\frac{1}{2}$—1 cm. long. My gathering exactly covers this range, except that a few are smaller in spike and leaf than his smaller figure. According to description and habitat, my smallest specimens might come under var. *microstachya* Wallroth, Sched. Crit., "Foliis ovatis depressis minutissimis, scapo illa subaequante brevissimo declinato, spica ovata depauperata ex flosculis 4—5 composita. Planta ex hoc genere minima." But the specimen in Herb. J. Gay at Kew, sent by Wallroth himself, is quite different in appearance, resembling a reduced form of var. *agrestis* Fries. On the other hand, Wallroth's own specimen of his var. *brachystachya* (for which he gives *minima* DC. as synonym) in Herb. Gay is very similar in general appearance, but that is a plant of wet ground (cp. Williams' "Prodromus," p. 355, *P. uliginosa* F. W. Schmidt, as a species). The plants sent to the other club in 1916 by the Rev. H. J. Riddelsdell are, I believe, identical.—W. C. Barton. For me, this is only a starved condition of the var. *intermedia* Syme.—E.S.M. This is *P. major* L., var. *brachystachya* Wallr. "Sched. Crit.", 62 (1822). I think *P. minima* DC. "Fl. France," III. 408 (1805) is practically synonymous. *P. nana* Tratt. is a close ally, with a longer spike and larger leaves.—E.G.B.

P. lanceolata L., var. *sphaerostachya* M. & K. (Ref. No. 321). Hillside track, Willsham, near Countisbury, N. Devon, v.c. 4, Aug. 12, 1917.—W. C. Barton. Probably correct; cultivation would prove whether this is more than a depauperate *state*, as I strongly suspect.—E.S.M. Correct.—E.G.B.

Scleranthus annuus L., forma. Growing abundantly in oat stubble, Grey Abbey, Co. Down, v.c. 38, Oct. 2, 1917. This branched form is like a German specimen I possess named var. *fastigiatus*. It may be caused by growing in stubbles in a very wet season. It was growing with a form of *Euphorbia exigua* L. —C. H. Waddell. The usual field-form.—E.S.M. Not any particular "form," I think, but a very usual state that occurs in late summer and autumn.—C.E.S.

Salicornia. All my gatherings from the Isle of Wight in 1916 have been seen by Dr. Salisbury, who writes: "My time is so fully occupied just now that I have been unable to examine

every specimen critically, but only typical ones from each sheet. However, as you had so well sorted them I think there is little likelihood of error." Dr. Salisbury named each sheet for me, and I have since examined closely every one of the plants to satisfy myself that there was no mixture. In all cases the name is that given by Dr. Salisbury.—W. C. Barton.

Salicornia herbacea L., f. *stricta* Moss & Salisbury (= *S. stricta* Du Mortier). (Ref. No. 311 A). Tidal mud, Yarmouth, I. of Wight, v.c. 10, Sept. 15, 1916.—W. C. Barton.

S. ramosissima Woods. (1) (Ref. No. 312 A—D). Salt fallows, Brading Harbour, I. of Wight, v.c. 10, Sept. 8, 1916. The tallest specimens were growing among vegetation, and reached 37 cm. in height. Generally the plants decreased in height and luxuriance as they grew farther from the salt stream and on drier mud. Dr. Salisbury says: "All these appear to be quite good *S. ramosissima*; A and D illustrate the normal range of variation in habit of the larger specimens." (2) (Ref. No. 316). Drying mud in Newtown salt-pans, I. of Wight, v.c. 10, Sept. 7, 1916. —W. C. Barton. The stout character of the spikes is due to the mature condition of the fruits.—E.J.S.

S. gracillima Moss. (Ref. No. 314 A). Dry mud, salt fallows, Brading Harbour, I. of Wight, v.c. 10, Sept. 8, 1916.—W. C. Barton. Too young; but I have little doubt that it is the same as my plant from Pagham, W. Sussex, on which Mr. Townsend founded his varietal name.—E.S.M.

S. gracillima Moss × *ramosissima* Woods. (Ref. No. 314 B). Dry mud, salt fallows, Brading Harbour, I. of Wight, v.c. 10, Sept. 8, 1916.—W. C. Barton. I quite agree, as far as the material goes.—E.S.M.

S. gracillima Moss, ? × *ramosissima* Woods. (Ref. No. 314 C). Dry mud, salt fallows, Brading Harbour, I. of Wight, v.c. 10, Sept. 8, 1916.—W. C. Barton.

S. disarticulata Moss. (Ref. No. 317 A). Mud in Newtown salt-pans, I. of Wight, v.c. 10, Sept. 9, 1916.—W. C. Barton. The smaller specimens very typical.—E.J.S.

S. ——— (Ref. No. 320 C). Mud in Newtown salt-pans, I. of Wight, v.c. 10, Sept. 7, 1916. Dr. Salisbury says: "These are in general so close to type that if they are of hybrid origin they are probably *S. disarticulata* × (*S. disarticulata* × *ramosissima*)." If, however, we are justified in assuming that the flowers of

S. disarticulata are always solitary, which seems to be the case, these plants must be of hybrid origin, as all have one or more spikelets unmistakably three-flowered.—W. C. Barton. My two specimens—only in flower—are entirely single-blooming, and no trace of any mixed parentage is visible.—E.S.M.

Polygonum [*aviculare* L., ?sub-sp. *Roberti* Loisel.]. (non auct. Angl.). Grassy ground by Cranbrook Rd., Bristol, W. Glos., v.c. 34, Aug.—Oct. 1917. Name suggested at Kew. No fruit developed well during the wet autumn. Stems *erect*, short, bearing numerous large leaves and rather large pink flowers all down the stem. Several authors are mistaken in attributing Loiseleur's name to the *P. Roberti* which = *P. Raii* Bab.—H. S. Thompson. This can hardly come under *P. aviculare*. As far as the material goes (it is much better than what Mr. Thompson sent to me direct), the description in Rouy, "Fl. Fr.", XII. 111, seems to agree well enough; but fruit is indispensable.—E.S.M. Surely something else. Is it not an alien ?—A.B.

P. aviculare L., var. *litorale* (Link). On sands of shore just above high water mark, Ballywalter, Co. Down, v.c. 38, Sept. 21, 1917. All the specimens from one large plant 3 or 4 feet across, half buried in sand. Nuts finely striate, flowers *bright* pink—a beautiful plant.—C. H. Waddell. The very marked growth of this plant, and its large, rugose, rather shining fruit seem to separate it specifically from *P. aviculare* L.—E.S.M. Probably correct, but there are no fruits to make it quite sure.—A.B. This appears to be the plant figured in "Camb. Brit. Flora," t. 134, and labelled *P. aviculare*, var. *litorale* Koch (1837). The description of this by Koch in 1857 ("Syn. fl. Germ.", ed. 3, II. 536) is curiously brief—"foliis crassiusculis."—C.E.S.

P. Raii Bab. Sands by shore, Ballywalter, Co. Down, v.c. 38, Sept. 21, 1917. Flowers white, in striking contrast to the bright pink of *P. aviculare*, var. *litorale* growing near by.—C. H. Waddell.

Rumex crispus L., var. *trigranulatus* Syme Waste ground, St. Philip's Marsh, Bristol, W. Glos., v.c. 34, June 22, 1917.—Ida M. Roper. Certainly. This seems to be mainly, if not wholly, submaritime.—E.S.M. I should hardly call this var. *trigranulatus* J. T. Boswell. The principal European varieties of *R. crispus* L. are:—

α. typicus Beck, including var. *trigranulatus* Boswell;

β. unicallosus Peterm. One valve calliferous;

γ. *lingulatus* Schur. Valves smaller, subrotund cordate;
δ. *nudivalvis* Meissn. Valves not callose;
ε. *microcarpus* Bryhn. Fruits small.—E.G.B.

Later Mr. Marshall wrote: "I have never seen the description of var. *trigranulatus* 'Syme' (Dr. Moss keeps this name throughout, as it is baffling to quote one man under two names). But your plant appears to agree very well with specimens so named for me by Mr. Arthur Bennett, and it does not tally with the β to ε descriptions given by Mr. Baker. I believe that *trigranulatus* does come under the (assumed) type, but have no special knowledge." This is perhaps best left under type *crispus* (*typicus* Beck). In what I understand as var. *trigranulatus*, I find the nutlets are smaller (averaging 2½ mm. long), the perianth segments slightly narrower and the three tubercles subequal. In Miss Roper's plant the perianth segments seem of typical *crispus* size, *one* tubercle is noticeably larger than the others, and the nutlets average 3 mm. long.—C.E.S.

Thesium humifusum DC. Sandy field near Wyke Regis, Dorset, v.c. 9, July 20, 1884. Locality since built over for a Torpedo Factory.—J. W. White.

Ulmus nitens Moench (= *U. campestris*, var. *glabra* Ait.). Roadside near Eastfield, by Bristol, W. Glos., v.c. 34, Fl. March 31, 1916; Fol. June 19, 1916; Fr. May 18, 1917. A tree of characteristic habit, with lower branches spreading horizontally until they nearly sweep the ground. No fruit was developed in 1916. The *U. montana*, var. *nitida* of Syme in "Eng. Bot." is stated to be the hybrid *montana* × *nitens*.—J. W. White. One of the forms of *U. nitens* Moench (*U. glabra* Mill.) of which I have numerous examples, varying greatly in size and shape of leaf and amount of pubescence, in my herbarium. In addition to the described varieties there are many elms in the south-west of England which differ somewhat in foliage and habit from typical *U. nitens*, but they are not worth naming. Mr. White's plant has foliage of a paler tint than most of the specimens I possess.—A.B.J.

Urtica dioica L., var. *microphylla* Hausm. (Ref. No. 282). Coombe Farm, Brendon, N. Devon, v.c. 4, Sept. 9, 1917. A number of plants all similar, about three feet high, on garden refuse where growth was luxuriant. All leaves were as shown in the specimens. A useful note on the small-leaved forms of *U. dioica* appeared in "Rep. B.E.C.", 1905, p. 184.—W. C. Barton. Yes, I believe right.—E.S.M. Smaller-leaved than usual, but not, I believe, coming under Hausmann's variety.—C.E.S.

Betula pubescens Ehrh., var. *microphylla.* Thundersley Common, Essex, v.c. 18, July 21, 1917.—W. R. Sherrin. Material scanty, but it looks right. Catkins unusually stout for this variety. I had not seen it before from so far south.—E.S.M.

B. ——— (Ref. No. 2951). Root from boggy, peaty ground, at about 2800 feet, descending from the Lochnagar tableland towards the Dhu Loch, S. Aberdeen, v.c. 92, July 1906. Grown in garden, West Monkton, May 21, 1917. In the wild state this was a very small shrub, only a few inches high, with hairy leaves, strongly suggesting a cross between *B. nana* and *B. pubescens* (I have never found the latter so high up). It has now grown into a good-sized bush, nearly six feet in height, but has never produced catkins. The leaf-outline has become much less crenate, and it might well pass for *B. pubescens*, var. *microphylla*; but I still think that it may be a *per-pubescens* form of × *B. alpestris* Fr. —Edward S. Marshall.

Alnus glutinosa Gaertn., var. *macrocarpa* Loudon. Beechamwell Fen, W. Norfolk, v.c. 28, July 30, 1917. Coll. J. E. L. and J. L. Luddington. Largest pistillate catkins (green) 27 mm. × 18 mm. I have a sheet so named by Dr. Moss, gathered with him at Chippenham Fen, Cambs., Sept. 25, 1912, when, as I understood him to say, he found the var. for the first time in England. The tree was a small one, about 10 ft. high, standing isolated in boggy *Molinia* fen. Near by was a wood in which occurred *Prunus Padus.* The largest pistillate catkins measure (dry) 27 mm. × 13 mm., but there is considerable variation of size. The sheets now submitted from Beechamwell, W. Norfolk, in a similar situation, are from two trees about 15 ft. high on the margin of a wood bordering the fen. Here also grows *Prunus Padus.* The largest pistillate catkins, gathered July 1917, measured (green) 27 mm. × 18 mm., but were not at that date mature, so that there were a good many smaller ones amongst them. On Sept. 13, 1917, I gathered at Old Park Wood, near Fishbourne, W. Sussex, from three young trees about 12 ft. high, pistillate catkins which come very near the other measurements, viz. 26 mm. × 17 mm. (green). Again there was considerable diversity of size. Of these latter I can only send a couple of sheets for comment. In both sets the extreme measurements considerably exceed those given by Dr. Moss for var. *typica.* At Ambersham Common, W. Sussex, v.c. 13, on Sept. 15, 1917, one tree had fruiting catkins 12—13 mm. long (green); another bore catkins 15—17 mm. long. Two Hitchin sheets in my herbarium, gathered in Oct. 1912, have the largest catkins measuring (dry),

9 mm. × 10 mm. and 21 mm. × 13 mm. respectively. The largest leaf on the first-named is 10 cm. × 9 cm. The margin of the lamina is crenate, with slight irregular dentations. In the second the margin is more decidedly dentate, and the laminæ are smaller. On a sheet gathered by the Medway, near Tonbridge, Kent, in Feb. 1879, the *old* catkins are very small (13 mm. × 8 mm. only). The "B.E.C. Report," 1912, p. 179, has: "*Alnus glutinosa* Gaertn., var. *macrocarpa* Requien, 'Ann. Sc. Nat.', 1825, p. 381. Asch. & Graebn. 'Syn.' 1911, p. 419. ♀ catkins 3 cm. long, Berks.; var. *microcarpa* Uechtr., A. & G. *l.c.* 1911, p. 419. Female catkins 1—1·5 cm. long and 0·5 cm. broad, Northants., Oxford, Berks., Hants., G. C. Druce."—J. E. Little. Yes. I have not come across this very large-fruited variety, which seems to be scarce in Britain.—E.S.M. Loudon ("Arb. et Frut. Brit.") says that this has the leaves and fruit rather larger than those of the species, and is also of more vigorous growth, but he gives no measurements, so it is not possible to say exactly what he meant by his var. *macrocarpa*. Moss ("Camb. Brit. Fl." II. 87) describes the fruit of var. *macrocarpa* as 3 centimetres long, evidently an extreme measurement, and probably referring only to a single tree. Anyone who will take the trouble to examine a sufficient number of Alder trees will find a great variation in the size of the fruits. The description of *A. glutinosa*, forma *macrocarpa* Callier, Fedde "Repert. nov. sp." X. 230 (1912), is "Inflorescentiae fructiferae majores quam in forma *typica*, 20—25 mm. longae, 7—15 mm. diametientes," and fits Mr. Little's specimens very well, and I would prefer to leave them under that.—A.B.J.

Salix triandra L. Swamp, by G.W.R, Keynsham, N. Somerset, v.c. 6, May 11 and June 21, 1917.—Ida M. Roper. Coarsely and bluntly toothed foliage; under the type, I fancy.—E.S.M. Right.—E.F.L.

S. alba L., var. *cærulea* (Sm.) ? Copse between Gt. Wymondley and Willian, Herts., v.c. 20, July 1, 1917. Twigs olive, not easily detached; catkins stalked; capsule shortly stalked.—J. E. Little. Right.—E.F.L.

S. lapponum × *repens*, male. (Ref. No. 2963 B). Origin:—Lochy Burn, Glen Shee, v.c. 89, E. Perthsh, 1906. Cult. West Monkton, 1917; flowers, April 26; leaves, July 9. The hybrid —in two or three forms—has only, I think, been found on the banks of this stream, between 1200 and 1400 feet.—Edward S. Marshall.

S. aurita L., male and female. Engine Common, Rangeworthy, W. Glos., v.c. 34, April 29 and June 25, 1917.—Ida M. Roper. Yes.—E.F.L.

Orchis. (Ref. No. 229). All under this number from one marshy field, where, in addition to those now sent, *O. Fuchsii* Druce (*maculata* auctt.) occurred. The plants were sorted fresh, when the characters were easily distinguished. All forms varied much in size and in width of leaf (a character which I believe to be of no diagnostic value), and it is noticeable that all were gathered on the same day.

O. incarnata L. (vera). (Ref. No. 229 A). Marshy ground of fen, Mildenhall, W. Suffolk, v.c. 26, June 9, 1916. Flowers flesh-coloured, narrow, lateral margins of lip reflexed.—W. C. Barton. Yes.—E.S.M.

O. incarnata L. (Ref. No. 229 B). Lateral margins of lip somewhat less reflexed than in 229 A, and markings darker, the whole flower suffused with rose-purple. Mr. Druce tells me he is familiar with this form in a number of localities.—W.C.B. This seems to show a somewhat greater foliar development and slightly broader lip than obtains in the extreme form of *O. incarnata* occurring in the Scotch Highlands, the flowers of which, in my experience, may be either purple or salmon-pink in colour in different localities.—H.W.P.

O. incarnata L. × *prætermissa* Druce. (Ref. No. 229 C). Flowers dark or light purple, much nearer to those of *prætermissa*, but the lateral margins somewhat reflexed.—W.C.B. Best judged when fresh. It looks nearer to *O. prætermissa*, in a dried state; but I do not question the name. When fully out, the spikes would become more oblong.—E.S.M. It is not easy to see the evidence of hybridity in these specimens in the dry state, but this may have been much clearer *in situ*. To my eyes they very closely resemble No. 229 B, though the longer leaves may indicate *prætermissa* parentage.—H.W.P.

O. prætermissa Druce. (Ref. No. 229 D). This, I am convinced, is a good species.—W. C. Barton. This appears to be the plant which I understand to be *O. prætermissa* Druce, and if so it is, I believe, the common marsh *Orchis* of the South of England, and the only form I have seen in Surrey. Though its flowers are usually purple, they are occasionally flesh-coloured, and there were formerly a few plants with these pale flowers among the common purple-flowered form on Wimbledon Common.—H.W.P.

O. Fuchsii Druce × *prætermissa* Druce. (Ref. No. 229 E). The leaves in most of the specimens sent are more or less hooded, and the flowers nearer to *prætermissa* than *Fuchsii*; the leaves when fresh were distinctly spotted.—W. C. Barton. Too young to show the influence of *O. Fuchsii* well. The lip markings point to that; otherwise it might (at this stage) pass for the other parent.—E.S.M. If the leaves of this were spotted, and the plant was growing with the reputed parents, the identification is probably correct. The spur, however, simulates that of *O. latifolia*, and it seems possible that the plant belongs to a form with narrow, spotted leaves, occurring in the South of England, which has been referred to that species, but which may really be the above-mentioned hybrid. But in the example sent I can see no traces of the dark variegation of the lip which characterises most, if not all, the forms of *O. latifolia*.—H.W.P.

Asparagus maritimus Miller. (Ref. No. 4392). Between Cadgwith and Enys Head, Lizard, W. Cornwall, v.c. 1, June 18, 1917.—Edward S. Marshall.

Allium sibiricum L. (Ref. No. 4393). Rocky ground on the Serpentine, about three miles west of St. Keverne, towards Helston, W. Cornwall, v.c. 1, June 19, 1917. Very variable in size and hue of flowers; also in the direction of the stem-leaves, which were mostly sub-erect in the more luxuriant plants, but spreading or recurved in the dwarfer ones. Davey, in his "Flora," gives both *A. sibiricum* and *A. Schœnoprasum* as occurring in the Lizard peninsula; but I rather doubt the occurrence of the latter, having noticed that garden-grown states of *sibiricum* at Kynance Cove, no doubt brought in from close by, resemble the stronger specimens of my gathering. The difference between these two segregates is, in any case, not very great.—Edward S. Marshall.

Juncus tenuis Willd. Riverside path by the Avon, N. Somerset, v.c. 6, Sept. 1, 1917. Discovered in 1914 by Mrs. Sandwith; probably introduced a few years earlier (possibly from Belfast harbour). Specimens a foot high, gathered in May and June 1915, which had survived the winter, were in fruiting condition, and to-day, Jan. 2, 1918, most of the capsules still contain seed. —H. S. Thompson.

Potamogeton gracilis Wolfg. Found by me at Loch Moraig, about three miles N.E. of Blair Atholl, E. Perthsh., v.c. 89, Aug. 15, 1917. Identified by Mr. Arthur Bennett. The specimens sent were collected this year on Aug. 25, and are not so good as

I should have liked, because, as the Loch was then much higher than in the previous year, and darker in colour, I could only gather from the great masses driven ashore, and these had been rather long uprooted to be in good condition.—W. Barclay.

Carex diandra Schrank, var. *major* Koch (= *C. Ehrhartiana* Hoppe). Seaman's Moss Pits, near Timperley, Cheshire, v.c. 58, collected June 1853 by the late John Hardy, of Manchester. These examples may be interesting to the members, as being collected more than sixty years ago from a locality where it is now extinct. (*See* Mr. S. H. Bickham's note in the "Journ. Bot.", 1917, pp. 113, 195).—Charles Bailey. This is certainly the plant figured as such in Syme's "English Botany," ed. 3, but it does not agree with descriptions, and is only a tall, drawn up form (or state) of the type.—E.S.M. Correct, I believe, but this variety has of recent years dropped out of our British lists as unworthy to rank as a variety. (*See* Reports, 1900—01, p. 30, and 1901—2, p. 22). Ascherson and Graebner (also Rouy) mention a variety *major* Koch, of which they consider *Ehrhartiana* Hoppe a synonym. Mr. Hardy's plant does not agree with Gibson's description of his *pseudo-paradoxa*, although it is from the same station (*see* "Journ. Bot.", 1916, p. 16). In view of Gibson's statement that his new species occurred near Malham Tarn, it is worth placing on record that Messrs. Pearsall & Lumb have recently sent me an example of true *C. paradoxa* from this lake, gathered by a game-keeper about 1909.—C.E.S.

C. vulpina L., var. *nemorosa* Lej. (Ref. No. 290). Hedge-bank, Bury Common, W. Sussex, v.c. 13, June 18, 1917.—W. C. Barton. Yes; a shade-form or var. of *vulpina*, which = *C. nemorosa* Rebentisch.—E.S.M. The usual reference given for this Carex var. is either Willdenow (1805) or Rebentisch (1804), in either case published as a species. So far as one can judge, Lejeune, in his "Rev. fl. env. de Spa," p. 193 (1824), seems to have been the first to place it as a variety. He remarks (p. 251), "Le *Carex nemorosa* Willd., qui se trouve dans nos bois, ne peut-être considéré, comme l'a fait M. de Candolle, que comme une variété du *C. vulpina* L. indiquée dans ma 'Revue' sous le No. 1336." Asch. et Graeb. "Syn. mitteleurop. Fl.", p. 37 (1902), quote it from Koch, "Syn.", ed. 2, 866 (1844), as a variety. I rather think that Boott, in his "Cyperaceæ," considers there are two forms under this variety, or that the name is used for a form it does not belong to, but I have not access to his work here. But do not these specimens rather come under the var. *interrupta* Peterm. ?—A.B.

C. Leersii F. Schultz. (Ref. No. 4398). Grassy ground by the Loe Pool, Penrose, near Helston, W. Cornwall, v.c. 1, June 21, 1917. Gathered rather too early. This comes nearest to *C. contigua* of the Linnean Herbarium (*C. Pairœi* F. Schultz), of which it has the short ligule (long, in *C. contigua* Hoppe = *C. muricata* auct. mult.); and it seems to be Syme's var. *pseudo-divulsa*.—Edward S. Marshall. This is rather young, and one would like to see the ripe fruit. The perigynia are considerably smaller (making allowances for age) than those of any examples of *Leersii* I have named by Kükenthal.—C.E.S. I do not pretend to know this group well, but I should have thought it nearer *C. divulsa*.—A.B.

C. montana L. In several places near Charterhouse on Mendip, N. Somerset, v.c. 6, where it is abundant over scores of acres, and appears in spots several miles apart, chiefly on both sides of the road to Cheddar, Apl. 29 and June 1917. Not discovered in Somerset until 1890, by Mr. E. F. Linton. During the past three seasons I have been investigating its distribution on Mendip, and am mapping the result in some detail. The earliest short flowering spikes are black before the anthers appear in April. By July most of the seeds have fallen.—H. S. Thompson.

C. riparia Curtis, var. *humilis* Uechtr. Damp sand by swamp on Burnham Sandhills, N. Somerset, v.c. 6, July 2, 1917. A short, slender form with narrow leaves, sometimes only 9—15 inches high.—H. S. Thompson. Correct.—A.B.

Spartina Townsendi H. & J. Groves. Referring to the W.E.C. Report, 1913, p. 426, line 33, I may add that in Sept. 1917, I found four clumps of this grass on the west side of Pagham Harbour, Sussex, where I had not previously observed any.—J. E. Little.

Alopecurus geniculatus × *pratensis* (= *A. hybridus* Wimm.). Amberley Wild Brooks, W. Sussex, v.c. 13, June 21, 1917. This grass attracted the attention of Mr. L. B. Hall and myself when botanizing along the side of one of the numerous dykes of Amberley Wild Brooks. It was growing in plenty in close proximity to *A. geniculatus*, and formed handsome clumps with its brilliantly glaucous sheaths and yellow anthers. The spikes were larger and the awns longer than in *geniculatus*, and the plants were taller and more robust, although decidedly geniculate near the base. The glumes and pales reminded one more of

pratensis, but the ligule was long, as in *geniculatus*. *A. pratensis* grew not very far away in comparatively dry ground, and it was noticeable that the hybrid preferred spots at the tops of the dyke banks, and did not choose, as is often the case with *geniculatus*, to have its roots in the water. These Amberley examples seem to agree well with Messrs. Bromwich & Jackson's Warwickshire plant (B.E.C. Rep. 1900, 650) and the Rev. H. P. Reader's specimens of the hybrid from Staffordshire (Watson B.E.C. Rep., 1900—1, 31). Mr. A. B. Jackson ("Journ. Bot.", 1901, 232) has also called attention to the remarkably glaucous sheath—a character which first caused us to take special notice of the plant.—C. E. Salmon.

Deyeuxia neglecta Kunth, var. *borealis* (Laest.). Killin, Mid-Perthsh., v.c. 88, Aug. 10, 1917.—R. J. Burdon. *D. neglecta* Ehrh., var. *borealis* Ar. Benn.; *Calamagrostis borealis* C. P. Laest. Bid. t. kann. Vaxt. Tornea Lappmark, 28 & 24 (1860); *C. stricta*, var. *borealis* Hartm. Sk. Fl. 517 (1879); *C. stricta*, var. *majus* L. L. Laest. ap Hjelt. This rare and interesting *Deyeuxia* was first found by Mr. G. C. Druce in Strath Tay in Aug. 1888. He sent me a specimen, asking its name. I replied "*stricta* or *borealis*." Prof. Hackel subsequently confirmed the name *borealis*. It was afterwards reported as lost in Perthshire. C. P. Laestadius describes it (l.c.) from L. L. Laestadius's "An. veg. I. Karesuando och Enontekis" in two varieties, "α. paludosa and β. arinivaga." In Russian Lapland it is recorded at Svjatoj-noss, 68° 20′ n. lat., also in Swedish Lapland, Finmark, W. Bothnia, Iceland, and Greenland. C. P. Laestadius remarks, "Cum *C. stricta* maximum similitudinem habet. Differt autem arista subdorsali, hoc est; infra apicem, supra medium corollae fixa, brevissima, pilis corollam non aequantibus; longiora autem cum stricta." As with many other varieties, this is reduced to a form by Neuman in his "Sveriges Flora." Our plant seems to conform to the var. *paludosa*. In Swedish Lapland, where this occurs, many other plants take on variations induced by climate, summer temperature, etc., as, for instance, some years Sparganium, Potamogeton and others do not ripen their fruits. This is noted by Laestadius in his "Loca parall. Plant.''(1839), where he discusses these matters very fully. In the specimen sent me the asperous hairs are much more numerous on the upper part of the stem and the panicle branches; by the end of the summer these have usually fallen off.—A.B.

Aira caryophyllacea L., [var. *aggregata* Trin.]. (Ref. No. 302). Roadside, Barmouth, Merionethsh., v.c. 48, June 10, 1915. Dis-

tinguishable by colour as well as by growth of panicle.—W. C. Barton. The spikelets are clustered at the ends of the floral branches; but by *aggregata* I understand a plant with numerous stems.—E.S.M. *A. aggregata* Timeroy (not Trin., as on Mr. Barton's label) is treated as a species by Boreau ("Fl. cent. Fr."), but the description given there does not very happily fit the example that reached me.—C.E.S. I should certainly not call this *aggregata*, as that is a taller plant than the type, and the flowers, etc., are larger.—A.B.

Molinia varia Schrank, var. Claygate, Surrey, v.c. 17, July 24, 1917.—W. R. Sherrin. Surely merely a depauperate form of the plant.—A.B.

Poa polynoda Parnell (= *P. compressa* var. *β* Bab. "Man."). Waste ground by canal, Bollington, Cheshire, v.c. 58, July 1917. —Coll. G. A. Holt. Comm. C. Bailey. This seems to fit the description, but I have no well-authenticated specimen. Hackel has referred some gatherings so named to the type.—E.S.M. Apparently correctly named. It has the knot-position and fewer-flowered obsoletely-webbed spikelets which Syme ("E.B." ed. 3) says is characteristic of Parnell's plant. The ligule, however, is not (it seems to me) longer than in *compressa*, which Syme says should be the case.—C.E.S. I believe correct.—A.B.

P. Chaixii Vill. (= *P. sylvatica* Chaix = *P. sudetica* Haenke). Brooklands Avenue, Sale, Cheshire, v.c. 58, June 1917. Coll. Mr. G. A. Holt. Comm. Charles Bailey. Yes.—E.S.M.

Glyceria maritima M. & K. (**1**) Pagham Harbour, W. Sussex, v.c. 13, June 29, 1917.—R. J. Burdon. Panicle very narrow (this may be due to age); rachis and branches somewhat rough. It seems to approach Parnell's var. *hispida*.—E.S.M. (**2**) Chichester Harbour, W. Sussex, v.c. 13, June 9, 1917.—R. J. Burdon. Not unlike *G. Foucaudii* in general appearance, but the glumes and pales are glabrous, so I believe this to be only a rather fine form of *G. maritima*.—E.S.M. (**3**) Hayling Island, S. Hants., v.c. 11 [no date].—R. J. Burdon. Correct.—A.B.

G. Borreri Bab. Pagham Harbour, W. Sussex, v.c. 13, June 18, 1917.—R. J. Burdon. Yes.—A.B.

Brachypodium sylvaticum R. & S., approaching var. *glabrescens* Syme. Shady bank above Ullswater, Westmorland, v.c. 69, Aug. 11, 1917.—S. H. Bickham. This is very slightly hairy, so there seems no need for caution; but the variation, at best, is

very slight.—E.S.M. Although certainly more glabrous than type, it is probably not enough so to come under Syme's variety, but I admit I have not seen a type specimen of that.—C.E.S. The name *glabrescens* is rather a misnomer, as Syme says "spikelets glabrous," whilst his name would lead one to suppose they were slightly hairy.—A.B.

Lolium perenne L. × *Glyceria plicata* Fr. Chichester, Sussex, v.c. 13, July 3, 1917.—R. J. Burdon. Mr. Druce sent this to the other Club. The sheaths are deeply furrowed; and I believe that his opinion is correct.—E.S.M. One can see the *Lolium* in this, but surely it is difficult to recognise a *G. plicata* hybrid, as the species is not itself always easily separated.—A.B.

Lepturus filiformis Trin. By the Bristol Channel, near Avonmouth Dock, W. Glos., v.c. 34, July 21, 1908. A luxuriant form.—J. W. White.

Asplenium septentrionale Hoffm. Near Llanrwst, Carnarvonsh., v.c. 49, Aug. 1917.—J. E. Griffith. Very interesting to know it exists still in this station, but I am sorry to see a root on my sheet; fronds would have been quite sufficient.—C.E.S.

Ceterach officinarum Willd., var. *crenatum* Milde. Walls, a mile apart, near Blagdon, N. Somerset, v.c. 6, on dolomitic conglomerate, and at Burrington, two miles off. March and April 1917. Though *Ceterach* is so common in Somerset, this variation appears to have been recorded only once before from the county, viz. from Chewton Mendip. But I have it also from a lias wall at Northover, Street, 1887. Selected specimens from Blagdon Mr. J. W. White described as "excellent var. *crenatum*."—H. S. Thompson. The variety was discovered at Abbotsleigh, the Somerset side of Bristol, in 1916. (*See* "Journ. Bot.", 1918, p. 86).—I.M.R.

Chara ———. Wretton Fen, W. Norfolk, v.c. 28, July 26, 1917.—J. E. Little. *C. hispida* L. emend., a dilapidated state.—J.G.

C. vulgaris L., small form, ? var. *crassicaulis*. Nailsea Moor, N. Somerset, v.c. 6, Sept. 10, 1904.—J. W. White. The plant circulated through the Club in 1906 (*see* Report, 1906–7, p. 121). A form with broad secondary cortical-cells, well-developed spine-cells, and with the posterior bract-cells developed. Nothing like so extreme a plant as the var. or subsp. *crassicaulis*, which has a thick stem and more definitely botuliform bract and spine-cells.—J.G.

C. canescens Lois. (Ref. No. 4403). Pool, Lizard Downs, W. Cornwall, v.c. 1, June 22, 1917. Mr. James Groves, who has seen a specimen, wrote: "I have never seen a male specimen. It is wonderful how the plant keeps going so well by parthenogenesis."—Edward S. Marshall.

Nitella mucronata Miquel, var. *gracillima* Groves & Webster-Bullock. Pond, near Wickwar, W. Glos., v.c. 34, June 4, 1917. (*See* "Journ. Bot.", Nov. 1917).—Ida M. Roper.

SUBSCRIPTIONS, 1917.

	s.	*d.*
Babington, Mrs. C. C. ...	6	0
Bailey, C. (paid in 1909)..	5	0
Barclay, W.	6	0
Barton, W. C.	6	0
Bickham, S. H.	6	0
Bishop, E. B.	6	0
Bostock, E. D.	6	0
Boyden, Rev. H.	6	0
Burdon, Rev. R. J.	6	0
Comber, J.	6	0
Cotton, Mrs.	6	0
Crosfield. A. J.	6	0
Davy, Lady	6	0
Day, Miss L.	6	0
Druce, F.	6	0
Ewing, Mrs.	6	0
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Frazer, J.	6	0
Geldart, Miss A. M.	6	0
Goode, G.	6	0
Gregor, Rev. A. G.	6	0
Gregory, Mrs E. S.	6	0
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Higgins, Miss D. M.	6	0
Hunnybun, E. W.	6	0
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White, J. W.	6	0
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Wilson, E. A.	6	0
Wolley-Dod, Major A. H.	6	0
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TREASURER'S BALANCE SHEET, 1917.

Receipts.

	£	s.	d.
Subscriptions for 1917	14	1	0
Balance due to Treasurer, Dec. 31st, 1917	1	18	0
	£15	19	0

Expenditure.

			£	s.	d.
Balance due to Treasurer, Dec. 31st, 1916			2	8	6
Printing—					
Thirty-third Annual Report (150 copies)					
43 pages and wrapper	11	0	0		
List of Desiderata for 1917		15	0		
Circular		3	0		
				11	18	0
Working Expenses—					
Distributor				1	12	6
			£15	19	0

31*st December*, 1917.

SPENCER H. BICKHAM,
Hon. Treasurer.

21 NOV 1918

8 OCT. 1920

Vol. III., No. 3.

THE

THIRTY-FIFTH & THIRTY-SIXTH ANNUAL REPORTS

OF THE

WATSON

Botanical Exchange Club

1918—19 & 1919—20.

Referees:

Rev. E. F. LINTON, M.A., F.L.S., Edmondsham Rectory, Salisbury.

H. W. PUGSLEY, B.Sc., 81 Alexandra Road, Wimbledon, S.W. 19.

Rev. H. J. RIDDELSDELL, M.A., Wigginton Rectory, Banbury.

C. E. SALMON, F.L.S., Pilgrims' Way, Reigate.

Distributors:

Prof. J. W. CARR, M.A., F.L.S., F.G.S., University College, Nottingham (1918—19).

J. E. LITTLE, M.A., Wymondley Road, Hitchin (1919—20).

Hon. Treasurer:

SPENCER H. BICKHAM, F.L.S., Underdown, Ledbury.

Hon. Secretary and Editor:

GEORGE GOODE, M.A., Lyndhurst, De Freville Avenue, Cambridge.

CAMBRIDGE:

PRINTED BY J. PALMER, ALEXANDRA STREET

1920.

Yours very truly,
Edward S. Marshall.

Vol. III., No. 3.

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CAMBRIDGE:

Printed by J. Palmer, Alexandra Street

1920.

THE WATSON

Botanical Exchange Club.

Report for 1918—19 and 1919—20.

For 1918—19 the contributors were :—

	Sheets.
Mr. W. Barclay...	14
Mr. W. C. Barton	509
Mr. S. H. Bickham	69
Rev. Preb. R. J. Burdon	119
Mr. A. J. Crosfield	33
Rev. Preb. H. E. Fox	65
Mr. J. E. Griffith	38
Mr. L. B. Hall ...	52
Miss D. M. Higgins	8
Mr. J. E. Little	119
Mr. H. C. Littlebury	14
Dr. F. Long ...	20
Rev. E. S. Marshall	103
Miss I. M. Roper	279
Mr. C. E. Salmon	33
Mr. W. R. Sherrin	80
Mr. H. S. Thompson	53
Rev. C. H. Waddell	57
Mr. J. W. White	208
Total ...	1873

1919—20.

The number of sheets sent this year has been considerably smaller owing to various causes, some of which were alluded to by Miss Roper in her last Report, while others, like the absence or diminution of parcels from long-standing and generous contributors, are special to the present year. The death of the Rev. E. S. Marshall leaves a gap which the Club will find it hard to fill. An appreciation of him appeared in the "Journal of Botany" for Jan. 1920, and a shorter notice by the Rev. E. F. Linton is embodied in the present Report.

The contributors for the year were sixteen in number, viz. :

	Sheets.
Mr. C. Bailey ...	19
Mr. W. Barclay	13
Mr. W. C. Barton	215
Mr. S. H. Bickham	177
Rev. Preb. R. J. Burdon	122
Mr. A. J. Crosfield	38
Miss L. Day ...	18
Rev. Preb. H. E. Fox	46
Mr. J. E. Griffith	79
Mr. A. R. Horwood	146
Mr. J. E. Little	274
Dr. F. Long ...	17
Miss Ida M. Roper	179
Mr. C. E. Salmon	27
Mr. H. S. Thompson	112
Mr. J. W. White	92
Total ...	1574

Notes were received from the following, to whom the thanks of the Club are hereby conveyed: Mr. E. G. Baker, Mr. W. Barclay, Mr. W. C. Barton, Mr. A. Bennett, Mr. E. B. Bishop, Mr. C. E. Britton, Mr. C. Bucknall, Dr. E. Drabble, Dr. G. C. Druce, Mr. A. H. Evans, Mr. J. Fraser (Kew), Mrs. Gregory, Mr. J. Groves, Prof. A. Henry, Mr. A. B. Jackson, Mr. C. C. Lacaita, Rev. E. F. Linton, Mr. W. H. Pearsall, Mr. H. W. Pugsley, Mr. C. E. Salmon, Mr. H. S. Thompson, Mr. J. W. White, Mr. A. J. Wilmott, and Lt.-Col. A. H. Wolley-Dod.

Various remarks by specialists in critical genera as to the best time and state at which to collect these plants for the herbarium may be here mentioned with advantage:

Batrachium. Mr. W. H. Pearsall's notes in Suppl. to B.E.C. Report, 1918, p. 423. Mr. J. Groves, in W.E.C. Report, 1917, p. 49, and on aquatic plants generally.

Cruciferæ. More than once the absence of well-developed pods is noted as a defect.

For *Rosa* see in "Journ. of Bot.", Jan. 1920, p. 23, a note by Lt.-Col. A. H. Wolley-Dod on the best shoots to select for the purpose. He places more reliance on late than on early gatherings.

Gramineæ. Grasses will suffer less in transmission if they are dried within the limits allowed (16 × 10 in.), and acute-angled bends where necessary seem preferable to a curve. Detached culms are a possible source of confusion. Mr. Jas. Britten's kindly and appreciative notice, in which he alludes to Mr. Marshall's careful preparation of his specimens, is worthy of attention.

Ulmus. Mature leaves (July—Sept.) are necessary.

There is a note on the preservation of the form of the labellum of Marsh Orchis by Dr. G. C. Druce in B.E.C. Report, 1917, p. 152.

Mrs. Gregory points out that good and well-dried material, if possible in more stages than one, is necessary for the determination of violets.

No Desiderata List will be issued for 1920. It is hoped that members will, as far as possible, send adequate notes for the information of the referees with the species selected.

Parcels of plants were sent to the herbariums of the British Museum, and of Oxford and Cambridge Universities.

The Distributor desires to express his thanks to Miss A. M. Chambers, Headmistress of the Girls' Grammar School, Hitchin, for permission to use a class-room, which greatly facilitated the work of distribution, and to the following gentlemen who gave

him assistance with the parcels: Messrs. E. F. D. Bloom, M.A., B.Sc., A. W. Dawson, M.A., H. F. Hardwick, H. C. Littlebury, R. Morse, and F. Ransom.

J. E. LITTLE, M.A.,
(*Distributor*, 1919—20.)

EDWARD SHEARBURN MARSHALL, M.A., F.L.S.

So full a memoir of E. S. M. has appeared in the January number of the "Journal of Botany," from the pen of the Editor of the Journal, that another is hardly needed, and a very short sketch is aimed at here, by way of acknowledgment of the Club's indebtedness to Mr. Marshall, who for some years has been one of its most helpful referees.

Marshall was just ten years my junior, and consequently I had taken my degree and gone down some years before he came up to Oxford. This was in 1877, when, coming from Marlborough College, he gained a Scholarship and an Exhibition at Brasenose College. He took a 2nd Class in Classical Moderations (1879) and a 3rd Class in History; B.A. in 1881; M.A. in 1884. He was trained for Holy Orders at Wells Theological College, where he made the acquaintance of the Rev. R. P. Murray, who already was working at the "Flora of Somerset" (in 1882), and who a year later became Vicar of Shapwick in Dorset. From him Marshall got much impetus in the pursuit of botany, and afterwards recalled him as "his first real helper in the study of critical plants."

He entered on his clerical career by acting as Curate in the Marlborough College Mission, Tottenham, 1883—85; he was Curate of Witley, Surrey, from 1885 to 1890; elected F.L.S. in 1887; for ten years he was Vicar of Milford, Surrey, 1890–1900; then for two years Curate of Graffham-with-Lavington, Sussex; and for two years more Vicar of Keevil, Wilts., till 1904, when he became Rector of West Monkton, where he remained till Michaelmas last year, when he retired from active work. He had suffered for some years from fits of nervous depression, and in 1918 had a serious breakdown, which led eventually to his resigning the living at Monkton, and removing to a place he had bought near Chepstow.

Unfortunately he did not live to enjoy his new home. His wife, whom he had met while still a curate at Witley, and married there in 1887, had become his companion in botanical pursuits, and her cheerful disposition had done a great deal to enliven and brighten his home life, as well as encourage him in

his researches in the critical genera and aid him in the field in their holiday rambles. Mrs. Marshall helped her husband much in the entertainment of their numerous guests, and I have many happy recollections of her excellent management of her home and charm as a hostess in the many visits I paid to their Vicarage, at Milford, at Keevil, and finally at West Monkton. It was a grievous trial to Marshall when his wife became the prey of an insidious and deadly disease; for her cheering presence and thoughtful management had contributed to make their joint life a very happy one. So when, after a long and depressing illness, she passed away early last November, it was not surprising that he never recovered the shock and the loss of a wife who had been for over thirty years his active partner in all his work, his right hand, one might almost say, in the parish as well as in the home life. He followed her within about three weeks of her death, dying suddenly on the 25th November, 1919, at the early age of 61, having been born on March 7th, 1858.

Marshall's botanical work has been so fully recorded, in the article before referred to, that it is needless to repeat the account. But it is only fair to his memory to put on record here the very useful critical work he has done for the Club. He has been one of the Referees for many years past, and the pages of the Reports testify to the good work he has done in determining the plants sent in, especially of the genera *Erophila*, *Viola*, *Epilobium*, *Saxifraga*, *Hieracium*, and *Carex*. He was a large contributor to the Club, and all his specimens were beautifully prepared. A large collector, he was a most generous distributor of his specimens, giving away all his spare specimens to friends after first selecting a good representation of his gatherings for the year to the British Museum. I should like also to put on record his liberal contributions to the sets of *Rubi*, *Hieracia*, and *Salices* brought out by my brother and myself.

One of Marshall's discoveries, that of *Carex chordorhiza* L., may be recorded, the account of which has been supplied by Dr. W. A. Shoolbred, who was with him and Mrs. Marshall at the time: "It was a terrifically hot day, and the plant was growing in a very wet black peat-bog. We were both pulling up specimens, and at the same time being devoured by clegs and midges, which we were unable to resist knocking off our faces with our black hands! The effect on our appearance can be better imagined than described." This discovery of the *Carex* at Altnaharra was announced in "Journ. Bot.", 1897, p. 450; and an article on it appeared in the same Journal, 1898, p. 73. His herbarium was bequeathed to Cambridge University.

E. F. LINTON.

In addition to the sad loss of the Rev. E. S. Marshall, we deeply regret to have to record the deaths of three other members since we issued our last Report. The Rev. C. H. Waddell died on the 8th of June, 1919. He had been a member since 1893, and during the whole of that time never failed to send his annual contribution of interesting plants for identification or distribution. (*See* "Irish Naturalist," Sept., 1919, p. 108, and "Journal of Botany," Dec. 1919, pp. 358—9.) Mrs. Babington died on May 19th, 1919, and with her we have lost one whose love of our wild flowers was ever unbounded, and whose interest in our Club's work never flagged. The Rev. W. Moyle Rogers died on May 26th this year. Since the death of Prof. Babington, Mr. Rogers had been the leading authority on *Rubi*, and no words can express the Club's indebtedness to him for so willingly devoting much of his time to examining and determining the numerous specimens submitted for his opinion, till, in 1916, failing health compelled him to relinquish most of the work. A portrait and short memoir of him are given in the "Journal of Botany" for this month.

GEORGE GOODE,

July, 1920. *Hon. Sec. and Editor.*

Additional Note to former Report.

34th Report (1917—18), p. 60.

Rubus rosaceus Wh. & N. [?]. Near Llangefni Church, July 1917.—J. E. Griffith. Mr. Riddelsdell now states that the specimen of this gathering possessed by him is a *dumetorum* form, but he cannot now say whether this applies to the whole gathering.

Myosurus minimus L. Stubble field, Kelsham Farm, near Petworth, W. Sussex, v.c. 13, Sept. 17, 1918. Not previously recorded for the West Rother division.—W. C. Barton.

Ranunculus fluitans Lam. Chichester Canal, W. Sussex, v.c. 13, June 16, 1919.—R. J. Burdon. Yes.—J.G. Very poor material—much too young, no fruits, leaves badly encrusted. Not *R. fluitans* Lam., but near *R. pseudo-fluitans* Baker & Foggitt, var. *minor*.—W.H.P. This is a very slender and small-flowered form of *R. fluitans*, and may possibly be var. *Bachii* Wirtg., but the material is very poor for determination.—H.W.P. Appears correctly named; it does grow there.—C.E.S.

R. trichophyllus Chaix. Old Park Farm, Bosham, W. Sussex, v.c. 13, May 3, 1918.—R. J. Burdon. I believe this to be *Drouetii* rather than *trichophyllus*.—C.E.S. Quite typical *R. trichophyllus* Chaix.—W.H.P. I should say *R. Drouetii*.—J.G.

R. Drouetii F. Schultz, var. *Godronii* (Gren.). Field pond, Farnborough Common, Marksbury, N. Somerset, v.c. 6, May 20, 1918.—I. M. Roper. Yes.—J.G. *R. trichophyllus* Chaix, f. *Godronii* (Hiern). Beautiful and charaeteristic examples, agreeing well with description and nearer to *trichophyllus* than to *Drouetii*. —W.H.P.

R. Baudotii Godr. Pagham, W. Sussex, v.c. 13, June 11, 1919.—R. J. Burdon. A hybrid, with *R. Baudotii* as one parent. —J.G. My examples have no fruiting heads, but the specimens seem eorreetly named.—C.E.S.

R. Lingua L., var. *hirsutus* Wallr. ? Oxborough Fen, W. Norfolk, v.c. 28, July 11, 1919. This form, with appressed hairs on leaves, stems and peduncles also oecurs in Wood Walton Fen, Hunts; in Wieken Fen, Cambs; in Mow Fen, Shouldham, Norfolk. Wallroth, in "Sehedulæ eriticæ," Halle, 1822, p. 288, has the following remarks: "*R. Lingua* L. (*α*) *glabratus* Wallr., caule, ealyeibus foliisque utrinque glaberrimis: (*β*) *hirsutus* Wallr., caule, ealyeibus foliisque utrinque pilis appressis hirsutis. Planta minus diligenter ab auetoribus deseribitur, et Candollius ipse caulem glabrum urget modoque adnotat, folia nonnisi margine et subtus subscabra esse. Equidem autem exemplaria ante oeulos habeo, undique omnibus partibus, pilis appressis, densis hirsuta: alia glaberrima. Utraque varietas foliis integerrimis, serratis et ineisis variat eaque varietas in *laciniatam*, de qua Sehlechtendalius l.l. 17 agit, transit." An examination of the sheets of *R. Lingua* in the Herb. Brit. Mus. shows that the Irish and Scottish speeimens have all of them a elothing of appressed hairs on the leaves and *upper* stems. I was unable to complete the examination of the English sheets, but those which I saw had the same charaeter. The amount of hair clothing varies, but I could find none with entirely glabrous leaves. Will some member now distribute the glabrous form? (*See* B.E.C. Report, 1916, p. 553). —J. E. Little. I know nothing of this variety, but I should suppose these plants would eome under it. Grenier and Godron say of *R. Lingua* "plante glabre ou pubescente"; and Babington, "Stems and leaves glabrous or with appressed hairs."—H.S.T. Yes, comes under var. *hirsutus* Wallr. (*See* "Flora of Berks," 1897, p. 19.)—G.C.D.

Helleborus occidentalis Reuter. With small purple blotches at base of sepals. Growing with the normal plant at Winterhead, Sideot, N. Somerset, v.c. 6. April 22, 1919. (*See* "Journ. Bot." 1915, pp. 113, 147).—H. S. Thompson. The small purple markings on the sepals seem practically to disappear in drying, just as they did in the Surrey plant.—C.E.S.

Fumaria muralis Sond., subsp. *Borœi* Jord. (197). Williton, S. Somerset, v.c. 5, April 16, 1915.—W. C. Barton. An early spring-flowering form, approaching *f. rubens* mihi.—H.W.P. On another specimen, sent at the time of the distribution, Mr. Pugsley remarked: "The sheet sent shows a young plant of subspecies *Borœi* just coming into flower, but I cannot see in it the features of *forma rubens*."

F. muralis Sond., subsp. *Borœi* Jord. (309 A). Rough open ground, Brendon, N. Devon, v.c. 4, Aug. 13, 1917.—W. C. Barton. This seems to differ slightly from 309 B and 309 C, in that the bracts are longer, the sepals a little larger, and the fruit relatively longer. It is perhaps simply a variant, but I should not apply the varietal name *britannica* to it, as it is not typical, and should prefer to leave it under *F. muralis*, subsp. *Borœi*. I notice that the fruits of all these plants tend to show a small apiculus. I have seen this in other N. Devon and N. Somerset examples of var. *britannica*.—H.W.P. On another specimen, sent at the time of the distribution, Mr. Pugsley remarked: "Yes; var. *britannica* mihi."

F. muralis Sond., subsp. *Borœi* Jord., var. *britannica* Pugsley (309 B). Rough open ground, Brendon, N. Devon, v.c, 4, Sept. 19, 1917.—W. C. Barton. Most of the specimens show somewhat luxuriant foliage though rather poor flowers.—H.W.P. Also (309 C) same date and locality.—W. C. Barton. These are all var. *britannica* mihi, gathered rather late and rather weak.—H.W.P.

F. parviflora Lam., var. *typica* Pugsley? On fen soil, White House Farm, Mildenhall Road, Littleport, Cambs., v.c. 29, July 14, 1919.—J. E. Little. Probably the type, but the plant sent was gathered too young, and shows no fruit.—H.W.P. [Later] It may be my *forma Vivianii* ["Revision Fumaria & Rupicapnos," in "Journ. Linn. Soc." XLIV. p. 323 (1919)], but the fruit is not sufficiently developed for certainty.

F. parviflora Lam., var. *acuminata* Clavaud (conf. H. W. Pugsley). With *F. officinalis*, var. *Wirtgeni* Hausskn. (det. H. W. Pugsley), and *F. micrantha* Lag., on a chalky field on the scarp of the hill. Barton Hills, Beds., v.c 30, July 13, 1918.—J. E. Little.

Matthiola sinuata Br. Saunton Cliffs, N. Devon, v.c. 4, Aug. 6, 1919.—Coll. C. Bartlett. Comm. Ida M. Roper. Agreed; but why are none of the typical lower leaves sent?—C.C.L.

Barbarea vulgaris [R. Br. in] Ait., var. *silvestris* Fr. Purwell Field, Hitchin, Herts., v.c. 20, June 24, 1918. Also distributed to the B.E.C. 1918 (Report, p. 486). Mr. A. B. Jackson saw the whole gathering in 1918. In 1919, on plants in the same spot, the siliquas, including beak, varied from 10—20 mm. in length. The smallest seemed to occur more generally at the lower end of the raceme.—J. E. Little. Some of the specimens sent shewed a tendency to vary in the direction of var. *campestris*, which is connected with the var. *silvestris* by intermediate forms.—A.B.J. The pods on my example are not "adpressis strictis" (Fries), nor are they as short ("about 12 mm.") as Mr. A. B. Jackson ("Journ. Bot.", 1916, 206) would like them. These average 20 mm. long. Is not Mr. Little's plant var. *campestris* Fr.?—C.E.S.

Arabis ciliata Br. (in ripe fruit). Hort. Epsom, Aug. 1918 [*ex* Dogs Bay, Roundstone, West Galway, 1913]. Sent at Mr. Salmon's suggestion to complete my 1916 series. Mr. Scully, in his recent "Flora of Co. Kerry," has some interesting notes on the relation between this plant and *A. hirsuta*.—W. C. Barton.

Cardamine pratensis L., fl. pleno. Meadow, Bishopsworth, near Bristol, N. Somerset, v.c. 6, May 14, 1918. First recorded from this locality in 1880. Kerner (Vol. II., p. 554) states that double flowers may become permanent through the influence of gall mites.—Ida M. Roper. This is the double state of the more frequent form of *C. pratensis*, the *C. palustris* Peterm.—C.E.S.

Erophila verna E. Meyer, var. *stenocarpa* (Jord.). Near Townhill Park, Southampton, S. Hants., v.c. 11, April 22, 1918.—W. R. Sherrin. Yes.—E.S.M. This is not, I think, *stenocarpa*, which has longer pedicels, of which Boreau says, "silicules deux fois plus courtes que le pédicelle," a feature borne out in examples named *stenocarpa* in my herbarium. I cannot, however, name Mr. Sherrin's plant; not *majuscula*.—C.E.S.

E. virescens Jord. (Ref. No. 4465). Near High Force, Teesdale, N.W. Yorks., v.c. 65, and Durham, v.c. 66, April 26 and May 1, 1918.—E. S. Marshall.

Capsella Bursa-Pastoris Med., var. *densifolia* Mott. Field near Narborough Bog, Leics., v.c. 55, May 15, 1916.—A. R. Horwood. One specimen (larger plant) var. *densifolia* Mott. Three smaller plants are var. *stenocarpa-coronopifolia* Mott.—C.E.B.

Thlaspi alpestre L. Gwydir, Llanrwst, Denbighsh., v.c. 50, July, 1919.—J. E. Griffith. I believe this comes under *T. sylvestre* Jord.—C.E.S.

Helianthemum canum Baumg. Orig. Great Orme's Head, Carnarvon, v.c. 49, 1918. Cult. Ledbury, May 27, 1919.—S. H. Bickham. The hoary character of the leaves is lacking in these specimens, and is by no means uniform in wild plants on the Great Orme. The leaves also vary greatly in form, being sometimes almost orbicular.—H.W.P.

Viola odorata L. × Long Spinney, Scraptoft, Leics., v.c. 55, May 7, 1916.—A. R. Horwood. Of the two sheets sent, (1) Not separable from *V. odorata*. Badly dried. (2) Badly dried specimens of what may be *V. hirta* × < *odorata*. The hairs are not so invariably depressed as in typical *V. odorata*, from which it is very slightly removed.—E.S.G.

V. hirta L., var. *œnochroa* Gillot (*fide* E. S. G.) (Ref. No. 1300). Open wood, Failand, nr. Bristol, N. Somerset, v.c. 6, March 21 and May 29, 1918.—Ida M. Roper.

V. hirta × *odorata*. (Ref. No. 1264). Tickenham Hill, N. Somerset, v.c. 6, April 3, 1918.—Ida M. Roper. Direction of hairs proclaims the hybrid *V. hirta* × *odorata*.—E.S.G.

V. sylvestris Kit. Sheepy Magna, Leics., v.c. 55, April 27, 1916.—A. R. Horwood. These plants should be placed under var. *punctata* of *V. sylvestris*.—E.S.G.

V. Riviniana × *sylvestris*. (1) (Ref. No. 1267). Roadside, Gaunt's Earthcott, W. Glos., v.c. 34, April 11, 1918. Spur reddish purple, slightly furrowed, lower petal broad with branched veins, leaves broader than long.—I. M. Roper. Yes; I think certainly a hybrid or variation of *V. Riviniana* and *V. sylvestris*.—E.S.G. (2) (Ref. No. 1369). Wood border under Lansdown, W. Glos., v.c. 34, May 26, 1919.—Ida M. Roper. Yes; I think Miss Roper is right. Either a cross or intermediate between *V. Riviniana* and *V. sylvestris*. The upper leaves (being narrower and more tapering) form the chief clue.—E.S.G.

V. arvensis Murr., ? var. *agrestis* (Jord.). (Ref. No. 4478). West Monkton, S. Somerset, v.c. 5, Sept. 30, 1918.—E. S. Marshall. Yes.—E.D.

V. arvensis Murr., var. *agrestis* (Jord.). (Ref. No. 375). Cornfield near Belstone, N. Devon, v.c. 4, August 24, 1919. Two upper petals sometimes suffused with blue. Habit suggests

agrestis, but some of the stipules are nearer the description of *ruralis*.—W. C. Barton. The larger specimens are *agrestis*: the smaller ones, with zigzag stems and widely-spreading pedunceles, are *arvatica*. The latter is the commonest field pansy in some parts of the country. Colour of the petals does not seem to be of any specific value in the *arvensis* pansies; the same plant may bear pale and particoloured flowers.—E.D.

Cerastium viscosum L., subvar. *elongatum* Rouy & Foue. (Ref. No. 347). Roadside, Lodsworth, W. Sussex, v.c. 13, Aug. 22, 1918. I understand Mr. Salmon is keeping this under observation. So far I have seen no petals. The present gathering shows the characteristic feature equally marked in young and old plants, and in large and small (1″ high to 12″). Rouy & Foue. "Fl. Fr." III., p. 213, divide *C. glomeratum* Thuill., *α. corallinum* Fenzl, *β. apetalum* Fenzl, and var. *α.* again: Sub-var. *confertum* Nob.—"Fleurs rapprochées en cymes denses brièvement pédonculées au sommet des rameaux peu nombreux: plante basse." Sub-var. *elongatum* Nob.—"Fleurs en cymes laxiuscules assez longuement pédonculées au sommet des rameaux: plante plus grande, plus rameuse." This seems to correspond fairly with our British forms, and their constancy should be tested in different soils and situations.—W. C. Barton.

Stellaria neglecta Weihe, [var. *decipiens* E. S. Marshall]. Brentingby Field, Leics., v.c. 55, May 10, 1916.—A. R. Horwood. I see nothing but the type. The acute papillae of the seed distinguish it from var. *decipiens*, and the hairy pedicels and calyces from var. *umbrosa* Opiz.—H.S.T. This is surely only *S. media*, type.—C.E.S.

Sagina ——— (Ref. No. 355). Stubble field, Kelsham Farm, near Petworth, W. Sussex, v.c. 13, Sept. 17, 1918.—W. C. Barton. For notes on this plant see Rept. B.E.C., 1918, p. 495.

Montia lamprosperma Cham., var. *boreo-rivularis* Lindb. ? Growing in water, Throwleigh, S. Devon, v.c. 3, June 10, 1918.—W. R. Sherrin. This really seems to be *M. lamprosperma* Cham. by the seeds, but whether Lindberg's plant of "Med. Soc. Fauna et Fl. Fenn.", 18—21 (1901), I doubt.—A.B.

Medicago sylvestris Fr. Near Higham, W. Suffolk, v.c. 26, 1912.—L. Day. Uncertain without more mature pods or colour of flowers. On one specimen very young pods have a falcate and twisted tendency, which would indicate *falcata*. In Garry's "Notes on the Drawings for 'English Botany'", pp. 46, 47, he

quotes from "Eng. Bot. Suppl.", 2980, the statement that "Sir J. E. Smith confounded two plants, and that he has added a ripe pod of *M. sylvestris* to a figure of the flowering state of *M. falcata*." This coiled pod appears in the original sketch in "Eng. Bot.", 1016.—H.S.T. Presumably so. This station is given in Hind's "Fl. Suffolk," but *Medicago* should be gathered, if possible, with ripe pods.—C.E.S.

Anthyllis Vulneraria L. (Ref. No. 370). Headland, Newquay, W. Cornwall, v.c. 1, June 5, 1919.—W. C. Barton. These are even taller than the Cornish specimens gathered by Mr. Loydell in 1903 and Preb. H. E. Fox in 1910 and sent to the Club, both of which were named var. *coccinea* L. (*A. Dillenii* Schultz = var. *rubriflora* DC. "Prod." II., p. 170). Mr. Barton's are more tomentose than any of my specimens of *coccinea*, but the hairs are *longer* on the average-sized specimens of this var. gathered by Miss Geldart in May, 1911. Were not Grenier and Godron, Dillenius, Boreau, and Linnaeus himself, right in considering this plant as a distinct species? I understand Mr. Barton is investigating this difficult group, with the help of modern literature and ample specimens, in London. On the whole I do not think his Newquay specimens come under *A. polyphylla* Kit., though they bear considerable resemblance to two sheets of Hungarian examples of that plant in my herbarium.—H.S.T.

A. Vulneraria L., ? var. Summersdale Gravel Pit, Chichester, W. Sussex, v.c. 13, Aug. 15, 1918.—R. J. Burdon. Under type, but my material is inadequate and badly dried.—W.C.B.

Prunus [*spinosa* L., var. *macrocarpa* Wallr. ?] Fruit 18mm. × 17mm, black. Young shoots pubescent. Green lane between the Priory Park and the Rifle Butts, Hitchin, Herts., v.c. 20, Oct. 19, 1919.—J. E. Little. I regard *P. spinosa*, var. *macrocarpa* as a transition form to *P. insititia*, or, in other words, I would say *P. insititia* × *spinosa*. My reasons for so doing are that the leaves are hairy on the midrib and secondary veins beneath, even conspicuously so, as in *P. insititia*, when collected in July or August; and that the flowers and leaves are contemporaneous, even if the leaves are not very far advanced. The fruits of *P. spinosa*, var. *macrocarpa* in the "Flora of France" vary from 14—20 mm. in diameter, while those of *P. spinosa* are 7—20 mm. in diameter, so that a small fruit of the former would be no larger than a large fruit of the latter. I have two sheets from widely separated localities in Surrey, which I consider *P. spinosa*,

var. *macrocarpa*, and the fruits are no larger than those of *P. spinosa*. The hairiness of the leaves is best seen on the long summer shoots, if collected between the middle of June and the end of August, and these leaves show the greatest size attainable. I would hesitate to say that I could always determine *P. spinosa*, var. *macrocarpa* without any flowering and fruiting specimens. The points are: relatively few and relatively large flowers, contemporaneous with the leaves; and globose fruits; also leaves very hairy on the midribs and secondary nerves. On account of the oval fruits and their large size I am inclined to think your specimen is *P. domestica* × *spinosa*. The leaves have lost their hairs, evidently owing to great age. I have some sheets of similar forms collected in Surrey, which I have named *P. domestica* × *spinosa*, or *P. communis* × *spinosa*, as Hudson's name is adopted by many. Some of the damsons of hedges have fruits as sweet, as juicy, and sometimes more free from the stone than some of the garden plums, and it is difficult or impossible to overlook the influence of *P. domestica* anywhere near a garden in which plums may be grown.—J.F.

P. insititia L. (**1**) Point S. of Old Park Wood, Fishbourne, W. Sussex, v.c. 13, Sept. 17, 1917. Drupe 22 mm. long × 20 mm. broad. Stems slightly pubescent, spinous; pedunele slightly pubescent. (*See* Rept. Wats. B.E.C., 1917–18, p. 56. *P. insititia* L. No. 3).—J. E. Little & J. W. Parrington. "*P. insititia* × *spinosa* ?" —G.C.D. Near *P. insititia* L. in most respects. The leaves are less hairy than usual, but this may be due to age (Sept. 17). The oval fruits suggest *P. domestica* × *insititia*, the latter probably the ♀ parent. The small size of the fruits is no bar to the suggestion. The Victoria plum, when selfed, is heterozygous for most of its characters, and gives, amongst many others, purple fruits as small as the bullace.—J.F. (**2**) Gt. Wymondley, Herts., v.c. 20. Fl. Apl. 7, 1918, Ls June 22, 1918. Fr. Aug. 31, 1917. A few sheets of the plant distributed to the W.E.C. in 1917 (Report p. 56), and to the B.E.C. in 1918 (Report, p. 499). Dr. Druce places it near var. *latifolia* (Jord. & Fourr.), and suspects it is *P. insititia* × *domestica*. Mr. Barton suggests that from the size and shape of the fruit it ought to be placed under *P. domestica* L.—J. E. Little. This has all the characters of *P. insititia* L., but the leaves are larger, with blunter or more rounded, shallow serratures, the pubescence of all parts excessive, the hairs on the peduncle being twice as long as usual or more. The flowers are as large as those of the garden plum, and the large oval fruits like those of the plum or damson. I should

consider it *P. domestica* × *insititia*, even although described as a variety of *P. insititia*. Can a pure sloe or bullace have oval fruits?—J.F.

Spiræa [*cancscens* Don]. Naturalised in wood below Cawsand Beacon, Dartmoor, Devon, Aug. 1919.—H. E. Fox. This is rather a difficult garden shrub. I have had a very fine specimen here for many years. In 1904 I tried to identify it correctly, and on comparison with Himalayan specimens in Herb. Kew, of *S. cancscens* Don, found that it did not agree. C. B. Clarke said that he thought it must be a form of *S. arcuata* Hook.-fil., which, however, is described as having hairy *red* flowers. This plant is always white-flowered. It does not set seed with me; the ripe carpels would at once settle whether it should be referred to *S. canescens* or to *S. arcuata*. Is it not probably a nurseryman's hybrid, subsequently propagated by runners, which it forms very abundantly? There is a specimen of this precise plant in Herb. Kew from Standish, grown at Ascot in 1872, and sent through Sir W. Thiselton Dyer under the name of *S. Standishii!* I am now growing true *S. arcuata* from Sikkim seed, but it has not flowered yet, though the plants are five years old. If it flowers this year I will compare. So far it seems a weaker plant than this.—C.C.L. [Later] "I have now had opportunity of looking at a fair number of specimens here, and am sure that it is a garden hybrid. All the plants that I have seen this year are sterile, whilst the *S. arcuata* from Sikkim seed is setting seed freely. It may very possibly be a hybrid between *arcuata* and some stronger growing kind."

Rubus ———. Near Ty Croes Station, Anglesey, v.c. 52, June 6, 1919. Flowers pale bluish rose colour.—J. E. Griffith. Poor material; but I have little doubt it is a somewhat abnormal form of *R. latifolius* Bab. In appearance it is much unlike the luxuriant specimens of 1916 (Griffith); and the sepals are much more olive-hued and more 'suberect' or *subrhamnifolius* in character than usual in this species.—H.J.R.

R. villicaulis Koehl., var. *calvatus* Blox. (Ref. No. 435). South Tawton quarries, N. Devon, v.c. 4, Sept. 2, 1919. Named by Mr. A. B. Jackson.—W. C. Barton. I do not know *calvatus*, and your specimens are very late-gathered. But they seem fairly well to agree with description and specimens, especially in the stem and leaflets. The chief weakness lies in the panicle foliage, a matter, however, of very varying value. I should say *calvatus* and a new county record.—H.J.R.

Rubus. The whole of my gatherings have been seen by the Rev. H. J. Riddelsdell and his naming aeeepted. All specimens under the same referenee number were gathered from one bush or group of bushes.—W. C. Barton.

R. silvaticus Wh. & N. Ref. Nos. 441, 426, 426 B ("perhaps."—H.J.R.), 414 ("probably."—H.J.R.), 437 ("in more or less probability."—H.J.R.). South Tawton quarries, N. Devon, v.e. 4, Aug. & Sept. 1919.—W. C. Barton. I think all are the same form, but I do not know the species well.—H.J.R.

R. hirtifolius Muell. & Wirtg. Nailsea Heath, N. Somerset, v.e. 6, July 25, 1918.—J. W. White. I suppose correctly named, though I see no note of the colour of the petals, and the panicle is very narrow.—H.J.R.

R. hirtus W. & K, var. *rotundifolius* Bab. (Ref. No. 429). Shady corner in South Tawton quarries, N. Devon, v.c. 4, Aug. 31, 1919.—W. C. Barton.

Potentilla norvegica L. Purwell Field, Hitchin, Herts., v.c. 20, Sept. 10, 1919. Sent also to B.E.C., 1919. These plants were at least biennial. Two years ago the field, whieh had been temporary pasture of ryegrass and lueern, was turned into allotments. But a strip was left unploughed for a road, and on this strip the plants were found in some abundance. The roots indicated that if undisturbed the plants would eontinue as perennials. [Later] All had disappeared in July, 1920.—J. E. Little. Yes; agrees with figure in "Fl. Dan." tab. 171.—C.C.L.

Agrimonia odorata Mill. (1) (Fruits only.) Near Old Park Wood, Fishbourne, W. Sussex, v.c. 13, Oct. 8, 1918. With *A. Eupatoria* L., but keeping distinet.—R. J. Burdon and J. E. Little. *See* B.E.C. Report, 1918, 501, where Mr. Little rightly remarks that *A. Eupatoria* is slightly aromatic. But as *A. odorata* is much more strongly scented, this feature may still be helpful in determining these plants.—C.E.S. (2) Old Park Farm, Bosham, W. Sussex, v.c. 13, Aug. 4, 1919.—R. J. Burdon. These plants were gathered within a mile of the station from which we obtained the fruits distributed in 1918.—J.E.L.

Rosa [*mollis* Sm., (glandular form)]. Roadside, Grey Abbey, Co. Down, June 12 and Aug. 1 and 9, 1918.—C. H. Waddell. These do not appear to me to be *R. mollis* Sm., but variations of *R. tomentosa* Sm. of the *omissa* group, nearest to, though not identical with, *R. omissa* Déség.—W.B. Not true *R. mollis*, I believe. It agrees much better with Irish specimens named *R. omissa*, var. *resinosoides* (Crépin) by the Rev. Augustin Ley.—E.S.M.

R. Eglanteria Huds., [var. *comosa* (Rip.)]. Mount Stewart, Co. Down, Aug. 1918.—C. H. Waddell. I should rather call it var. *apricorum* Rip., from the roundish fruit.—W.B. This is rather *R. apricorum* Rip., from its globose fruit and spreading, not erect, styles, though the strongly aciculate peduncles are those of *R. comosa*.—A.H.W.-D.

R. rubiginosa L. × *spinosissima* L. Below Caputh Bridge, East Perth, v.c. 89, Sept. 12, 1918.—W. Barclay.

R. micrantha Sm. Cadbury Camp, Tickenham, N. Somerset, v.c. 6, June 25 and Sept. 24, 1918.—Ida M. Roper. I have no doubt that this is correctly named.—W.B. Leaflets too small for type. I think it is *R. Lemanii* Bor., a name I am now using to cover the small-leafleted forms which are not conspicuously narrowed at the base as in *R. hystrix*.—A.H.W.-D.

R. agrestis Savi. Cadbury Camp, Tickenham, N. Somerset, v.c. 6, June 25 and Sept. 24, 1918.—Ida M. Roper. I think correct.—W.B. This is var. *subcuneata* Rouy. The type has very much narrower leaflets.—A.H.W.-D.

R. Borreri Woods. Quarry, Damery Bridge, Charfield, W. Glos., v.c. 34, July 17, 1918.—Ida M. Roper. Correct, I think; apparently grown in shade.—W.B. I agree. Very different in habit from *R. tomentella*.—E.S.M. Not *R. Borreri*, the leaflets and peduncles are much too glandular. It is a form of *R. micrantha*, very like var. *Briggsii* Baker, but has glandular-hispid peduncles. By Rouy's key it runs down to his var. *protracta*, about which I know nothing. It may be that glandular-peduncled forms of var. *Briggsii* exist.—A.H.W.-D.

R. canina L., gr. *dumalis* Bechst., f. *glaucophylla* Winch. Filton Meads, near Bristol, W. Glos., v.c. 34, June 17 and Sept. 22, 1919.—Ida M. Roper. This is *R. stenocarpa* Déségl. *R. dumalis* is larger and stouter, with hispid styles.—A.H.W.-D. A glabrous-styled variation of gr. *dumalis* Bechst., and with glaucous foliage. I suppose Winch would have put it to his *glaucophylla*.—W.B.

R. dumetorum Thuill., var. *urbica* (Léman). (**1**) Court House Estate, Horfield, W. Glos., v.c. 34, June 11 and Sept. 19, 1918.—Ida M. Roper. Correctly named, I think.—W.B. I should prefer to label this *R. trichoneura* Rip., but all the *dumetorum* group are very difficult.—A.H.W.-D. (**2**) Filton Meads, near Bristol, W. Glos., v.c. 34, June 17 and 22, 1919.—Ida M. Roper. Yes. Fruit broadly elliptic, styles nearly glabrous, foliage glaucous.—W.B. I think nearer *R. trichoneura* Rip. The old leaflets become subglabrous.—A.H.W.-D.

R. dumetorum Thuill., var. *semiglabra* (Rip.). Lane, Nailsea Common, N. Somerset, v.c. 6, June 14 and Sept. 24, 1919.—Ida M. Roper. This also is nearest to *R. trichoneura* Rip.—A.H.W.-D. This differs from var. *urbica* in its hairy styles, leaflets rather more rounded at the base, and with hairs only on midrib. It may be called var. *semiglabra* Rip., if that is worth separating from var. *urbica* Lém.—W.B.

R. [*dumetorum* Thuill., var. *Déséglisei* (Bor.)] (**1**) Castle wood, Banwell, N. Somerset, v.c. 6, June 6 and Sept. 18, 1918.—Ida M. Roper. I doubt that this is var. *Déséglisei*, but the specimen is insufficient to name with any certainty.—W.B. This is, I think, the same as the Charfield plant, i.e. var. *Briggsii* but with glandular peduncles, but some of the leaflets are smaller.—A.H.W.-D. (**2**) Filton Meads, near Bristol, W. Glos., v.c. 34, June 25 and Sept. 25, 1919.—Ida M. Roper. Under *R. incerta* Déségl., from its subglabrous leaflets.—A.H.W.-D. Although the specimens sent cannot be found much fault with, they leave me very doubtful if this is really a form of var. *Déséglisei* Bor. I am rather inclined to think it a form of *R. stylosa* Desv., but I cannot decide without seeing further specimens.—W.B.

R. glauca Vill., of group *Oenensis* R. Keller. Ditch near top of Buckie Braes, Mid-Perth., v.c. 88, Sept. 16, 1919. In 1908 I sent to the Club (No. 15) specimens of a rose which I called *R. coriifolia* Fr., of group *Bakeri* Déség. This passed the Club unchallenged, but subsequently Lt.-Col. Wolley-Dod, in "A list of British Roses," wrote as follows: "One of these, No. 15, which I passed in Wats. E. C. Rept., 1908—9, has glabrous leaflets, and therefore is a *glauca* and not a *coriifolia* form (*See* under *venosa*, p. 29). This caused me to re-examine the bush, and I found, to my surprise, that it consisted of two forms growing together, very similar but differing chiefly as to the clothing of the leaflets. One form undoubtedly belonged to group *Bakeri*, the other was what I now send. It will be seen that the leaflets in many cases are not quite glabrous but have a few scattered hairs, and these are denser at the top of the petiole. In some cases the leaflets are quite glabrous, and I agree that this rose is better put under *R. glauca* than *R. coriifolia*, although it shows how artificial is the distinction between the two groups. But the hispid peduncles and subfoliar glands quite prevent it from being put under *venosa* Swartz, as is done in the Colonel's list, and I am willing to adopt '*Oenensis* R. Keller' as being a suitable name for the group to which my rose belongs, because I do not know any which has a prior claim, though there may be such. I suppose that when the

Colonel passed No. 15 he saw one form, and when he condemned it saw the other.—W. Barclay. Of that group undoubtedly, and probably Keller's variety.—A.H.W.-D.

Aethusa Cynapium L., var. *agrestis* Wallr. (Ref. No. 350). Stubble field, Kelsham Farm, near Petworth, W. Sussex, v.c. 13, Sept. 17, 1918. Mr. Druce confirms the name. Has this been tested by cultivation? It seems at least possible that it is a late autumn form due to conditions. Perhaps some member would grow it from seed.—W. C. Barton.

Galium erectum Huds. (1) (Ref. No. 2643). Old pasture, mown this year in July, but browsed by sheep for many years, Sidcot, N. Somerset, v.c. 6, June 7 and 15, 1919. Variable in form, colour and stature. (*See* "Journ. Bot." 1919, p. 286). (2) (Ref. No. 2644). In long grass at side of drive to Newcomb, Sidcot, *id.* June 8, 1919. This drive twelve years ago was part of a pasture grazed by cows. New localities for this plant, rare in Somerset and apparently absent from Devon and Cornwall. (3) (Ref. No. 2642). Mowing grass, probably laid down within ten years, near Frenchay, W. Glos., v.c. 34, June 2, 1919 (the locality recorded in White's "Notes Supplemental to the Flora of Bristol," 1918). Several large clumps of a more robust nature than most of the Sidcot ones; but there were a few clumps in the Sidcot pasture, Ref. No. 2645, almost as robust, yellowish white in bud a fortnight later, but with narrow strap-shaped leaves 15—20 mill. long and very pointed, like those of var. *aristatum*. Syme says ("Eng. Bot." Ed. 3, Vol. IV., 1865, p. 218) *G. Bakeri* is "one of three or four intermediate forms which connect *G. erectum* with *G. elatum*, of which *G. aristatum* (Smith) is another." Some of the Sidcot specimens approach *G. elatum*, var. *Bakeri* Syme, in having "Leaves 6—8 in a whorl, strap-shaped or linear strap-shaped. Branches of panicle few-flowered." N. E. Brown in "Suppl. to Eng. Bot.", Ed. 3, says *G. erectum*, var. *diffusum* Baker in "B.E.C. Report" for 1863, p. 7 (1864), is *G. Bakeri* Syme. *G. diffusum* Don in Hooker was figured in "Eng. Bot, Suppl." 2783. See also Baker in "Journ. Bot.", 1863, p. 290, 'On a Yorkshire *Galium* allied to *G. erectum*,' in which he shows 'how closely the extremes of the series are linked together by intermediate stages of gradation." Much more might be written on the confusion of nomenclature and the published figures of this difficult group, but this is not the occasion, and I do not attempt even to outline the confusion; but for the present leave it with the observation that of the Sidcot gathering the number of leaflets varied from 5—8 in a whorl, though usually 6 or 7,

and in some the panicles were fewer-flowered than in others. I have a few notes and detailed drawings of Fen specimens sent in 1917 by the late Mr. Hunnybun, which may help in unravelling the tangle. Meanwhile, let us note that Syme merely divided *G. Mollugo* into two subspecies, *G. elatum* Thuill. and *G. erectum* Hudson, and the latter he subdivided into var. *genuinum* (leaves generally 8 in a whorl) and "? var. *aristatum* Bab." (leaves mostly 6 in a whorl with longer mucro). Of Borrer's Sussex specimen of *G. erectum*, drawn in 1809 for "Eng. Bot.", tab. 2067, Smith wrote, "I can never find more than eight leaves. This being a diffienlt and rare plant, requires more illustration. . . . . A leaf should be magnified to shew that the bristly marginal teeth all point forwards. The smooth fruit, though unripe, should be distinctly expressed." Then, as Mr. Garry observed, ripe fruit was added for "E.B." Ed. 3, and unripe fruit omitted.—H. S. Thompson. Of Ref. No. 2642 my sheet contains examples mostly in *bud* only, but they seem undoubtedly *erectum*. (Ref. No. 2643.) Yes, good *erectum*, I should say. The two examples on my sheet make no approach to the "Yorkshire *Galium* allied to *G. erectum*" ("Journ. Bot." 1863, 290) which Syme named *G. elatum* Thuill., var. *Bakeri*. It would appear, from Mr. Baker's careful description, that his plant would be better placed as a variety of *G. erectum*, with which it agrees as regards pedicel-length and angle, in leaves, flowers, and fruit, and also in its time of flowering. —C.E.S.

G. Mollugo × *verum* (*G. ochroleucum* Syme). (Ref. No. 2641.) A delicate hispid form. Roadside, Tickenham Hill, N. Somerset, v.c. 6, July 17, 1919. Leaflets usually six, narrow, lower ones much deflexed.—H. S. Thompson. Yes, no doubt *Mollugo* × *verum*. I have gathered Syme's *ochroleucum* in the station named by him (Deal sandhills), and it is a much smaller plant than Mr. Thompson's. May I suggest that Syme's name really covers *G. Mollugo* × *G. verum*, var. *maritimum* DC. (= *littorale* Bréb.) which grows on the Deal sand-dunes.—C.E.S.

Valeriana pyrenaica L. Half Way, Bethesda, Carnarvonsh., v.c. 49, April, 1919.—J. E. Griffith. Agreed.—C.C.L.

Filago apiculata G. E. Smith. Maulden, Beds., v.c. 30, August 12, 1918.—J. E. Little. Yes; gathered rather too late to show the broad blunt apiculate leaves. In this species the involucral leaves by no means *always* overtop the clusters.—C.E.S.

Gnaphalium uliginosum L., var. *pilulare* (Wahl.) Near Petworth, W. Sussex, v.c. 13, Sept 1, 1918. Type and variety

grew indiscriminately mingled in the same patch and under exactly the same conditions.—C. E. Salmon.

Cnicus palustris Willd., var *ferox* Druce. The Mineries, Priddy, N. Somerset, v.c. 6, July 4th, 1919.—Ida M. Roper. Yes, *Cirsium palustre*, var. *ferox* Druce.—G.C.D. Agrees with Dr. Druce's description of his *ferox*, which I presume differs from var. *spinosissimum* Willk. ?—C.E.S.

Centaurea nigra L., [var. *radiata* (*teste* Dr. Rendle).] Hedgerows, S. Tawton, N. Devon, v.c. 3, August, 1919.—H. E. Fox. A handsome plant with conspicuous rayed outer florets. Most botanists who have studied *Centaurea* must have experienced the inadequacy of referring similar plants to *C. nigra*, "var. *radiata*." Although coming under the aggregate *C. nigra* L., this plant, by reason of its ovoid heads and lanceolate disks of the bract-scales, must be placed to the segregate *C. nemoralis* Jord., which appears to be the usual British representative of *C. nigra*. Gugler, who ranks *nemoralis* as a subspecies, divides it into two varieties, (1) *Jordani*, characterised by its ray-less heads and black scales, and (2) *Nevadensis*, distinguished by its brown somewhat smaller scales and rayed outer florets. The Rev. H. E. Fox's plant clearly comes under the latter variety, although it must be admitted that, in some of the specimens, the colour of the scales approximates to black rather than to brown. This form seems frequent in some of the southern counties of England.—C.E.B. This I consider comes under *C. nemoralis* Jord., which is occasionally, though not normally, rayed.—C.E.S.

C. Calcitrapa L. Turf Common, nr. Carter's Bridge, Doddington, Cambs., v.c. 29, July 9, 1919 (with *Marrubium vulgare* L.). Mr. J. L. Luddington found the plant here in 1918. A gypsy from a camp on the turf common directed me to it, saying that he had known it there some eight years, and that he did not know another plant of it between Doddington and the Hundred of Hoo (Kent). The gypsies value a decoction of the plant as a cure for stone.—J. E. Little.

Hieracium cambricum F.J.H. Orig. Great Ormes Head, Carnarvonsh., v.c. 49, 1918. Cult. Ledbury, June 13, 1919. Styles yellow.—S. H. Bickham. Correct.—E.F.L.

H. ——— Orig. Great Ormes Head, 1917. Cult. Ledbury, June 13, 1919. Styles yellow. *H. lasiophyllum* Koch, I have no doubt; but wild specimens look different in the darker heads. —E.F.L. *H. britannicum* F. J. Hanb. This cultivated plant is

much more luxuriant than the wild form of the Great Orme, which is frequently quite dwarf. In "Journ. Bot." 1909, p. 12, the late Augustin Ley described a variety *sub-britannicum* of *H. stenolepis* Lindeb., citing the Great Orme as one of its localities. I do not know whether in his opinion the Great Orme plant previously referred to *H. britannicum* belonged to his variety, or whether two distinct plants occurred. But Mr. Bickham's specimen seems, from the hair-clothing of the foliage, to be *H. britannicum*, of the section *Oreadea*, and not a form of *H. stenolepis*.—H.W.P.

H. cæsium Fr., var. *decolor* W. R. Linton. Orig., Cottage stony patch, Great Ormes Head, Carnarvonsh., v.c. 49, 1918. Cult. Ledbury, Aug. 5, 1919. Styles yellow.—S. H. Bickham. I think rightly named.—E.F.L.

H. sciaphilum Uechtr. (Ref. No. 358.) Lovers' Leap, Llandrindod Wells, Radnorsh., v.c. 43, Aug. 13, 1916.—W. C. Barton. Correct, I think.—E.F.L. This appears to me to be referable to *H. strumosum* Ley in "Journ. Bot.", 1909, p. 49.—H.W.P.

H. umbellatum L. (Ref. No. 280.) To show variation in E. Lyn Valley, N. Devon, v.c. 4, Aug. 1917.—W. C. Barton. Correct.—E.F.L. These specimens apparently all fall under var. *monticola* Arv.-Touv.—H.W.P.

Sonchus arvensis L. (Ref. No. 354 *a* & *b*.) Rough cultivated ground near Petworth, W. Sussex, v.c. 13, Sept. 17. 1918.—W. C. Barton. The specimen labelled 354*a* may not be var. *glabrescens* G. G. and W. which, (*teste* Williams' "Prod."), has eglandular peduncles and phyllaries, but it seems to come satisfactorily under var. *laevipes* Koch, who says in his "Synop," ed. 3, 1857 (the var. dates from ed. 2, 1844), "pedunculis glabris involucris subhispidis vel pedunculis involucrisque glabris." This must not be confused with Grenier and Godron's *laevipes* ("Fl. Fr.") of later date (1850), which is evidently the same as *glabrescens*. However, as Mr. Barton truly remarks, these varieties are only matters of degree.—C.E.S.

Primula elatior Jaeq. × *vulgaris* Huds. On boulder clay, Hardwick Wood, Cambs., v.c. 29, May 20, 1919. In his paper on "*Primula elatior* in Britain," read before the Linnean Soc., 17 June, 1897, Mr. Miller Christy, F.L.S., states that the boundary line between the oxlip area and the primrose area runs through Hardwick Wood. On this line the hybrids between the two species are plentiful. Of the parents the oxlip is the more

abundant of the two over a considerable part of the wood, but on the south side of the wood it gives place to the primrose. I have noticed that *P. elatior* has spread on to the Railway bank near Stansted, Essex.—A. J. Crosfield. I think right.—E.F.L. Mr. Miller Christy, in his paper ("Journ. Linn. Soc.", 1897), remarks: "Nearly, if not quite, all the British localities in which the plant [*P. elatior*] grows in the open are, I believe, situated close to the edge of the oxlip area." My father's home for twenty-two years was at Stansfield Rectory, Suffolk, in the heart of the main oxlip area, and yearly visits in the spring gave me an opportunity of observing its habitats. While, in the main, Mr. Christy's remark is correct, and the woods periodically coppiced were its main stronghold, nevertheless, the finest development of the plant was along boggy rills and watercourses in rather more open ground. The number of plants in such situations was smaller, but both leaves and flowers were more luxuriant. For some years I grew plants at Hitchin; but in our lighter soil (and on a hill) they gradually dwindled and finally died out. The late Mr. J. H. Tuke grew plants from Saffron Walden in heavier soil in his garden in Bancroft, Hitchin, though to me they seemed to change and lose their character, possibly owing to the gradual substitution of hybrids for the original pure strain. Within a radius of some miles from Stansfield no primroses (except garden plants) were known to me. At one locality (Gallowgate), between Somerton and Thurston End, there were a few primroses, probably due to a garden, though apparently wild. Here there occurred hybrids which were difficult to place, as all three species were in close proximity. Mr. J. L. Luddington sent me some specimens from Wallington, near Downham Market, which he thought might be true oxlip. But they lacked the distinctive scent of the oxlip, and the throat of the corolla was wrinkled, as it never is in the true oxlip. There is, I think, no Boulder Clay at Wallington, and the height above sea level is not more than fifty feet. Also, Wallington lies outside the two main oxlip areas as delimited by Mr. Christy, and some distance to the north of even the two small outliers at Livermere Thicks (five miles north of Bury) and at Diekleburgh (two miles east of Diss), which are both on Boulder Clay. I suggest *P. veris* × *vulgaris* for the Wallington plants; and Prof. G. S. Boulger, to whom I showed them, concurs.—J. E. Little.

Anagallis arvensis L., *forma*. Under bracken on peat drove, near Ascott Station, N. Somerset, v.c. 6, Aug. 2, 1919. Some internodes of 3½ inches; slender upright form; leaves few, small

and distant; peduncles very long (some 2 inches). I imagine this is perhaps only a state, due to growing under bracken or peat, or I should feel inclined to call it var. nov. *internoda*, for the internodes are so very long in many cases—two of the retained and mounted plants have internodes 3½ inches in length. —H. S. Thompson. Etiolated owing to situation; not a form that should be named.—C.C.L. This drawn-up slender form with remarkably long peduncles is, I presume, a state due to environment, and would not be reproduced by seed?—C.E.S.

Symphytum orientale L. Cult. Clifton, Bristol, May, 1918. Native only in Turkey, near Constantinople. Does well in cultivation, and has occurred in this country as a stray on waste ground and by railways.—J. W. White.

Antirrhinum Orontium L. Spontaneously in garden of "Tile House," Hitchin, Herts, v.c. 20, July 24, 1919. Scarce in Herts, although it has been recorded from this district as a casual.— J. E. Little. Agreed.—C.C.L.

Mimulus moschatus Dougl. (**1**) (Ref. No. 379). Taw valley below Belstone, N. Devon, v.c. 4, Aug. 11, 1919. Plentiful in the streamlets; probably escaped from a cottage garden, but now naturalized. Quite scentless, but see "Journ. Bot.", 1919, p. 285. —W. C. Barton. (**2**) Fully naturalized in wet places below Cawsand Beacon, Dartmoor, Devon, Aug., 1919.—H. E. Fox. Agreed. This summer I noticed it very common (naturalized) in ditches near Strontian, Argyllshire.—C.C.L.

Euphrasia Rostkoviana Hayne (small forms). (Ref. No. 4432). Steep grassy slopes, Simonsbath, at 1100 to 1200 ft., S. Somerset, v.c. 5, Aug. 23, 1918. Gathered for *E. fennica* Kihlman, and often somewhat approaching that in habit, so that Mr. Bucknall queries it as an intermediate; but perhaps it is better left under *E. Rostkoviana*, having relatively large corollas, and capsules mostly truncate, or with a shallow sinus. It contrasts well with the larger examples sent, No. 4433.—E. S. Marshall.

E. Rostkoviana Hayne. (**1**) (Ref. No. 4433). Grassy ground in the Barle Valley, Simonsbath, S. Somerset, v.c. 5, at 1000 ft. (ascends to 1400 ft.), Aug. 27, 1918. Mr. Bucknall agrees, but one plant on his sheet, though having four long erect branches from the base, seemed to be *E. fennica*, so there may be a mixture. Capsules truncate, or with a shallow notch (this is deep in what he and I regard as being *E. fennica*).—E. S. Marshall. (**2**) Scrub Hill, Little Warley, Essex. v.c. 18, June 23, 1918 (*fide*

C. Bucknall).—H. C. Littlebury. Yes, the small form of open heaths, etc.—C.E.S.

E. Kerneri Wettst. Hill pasture, at 1600 ft., near Buxton, N. Derbyshire, v.c. 57, Aug. 15, 1918.—J. W. White. Yes; rather laxly-grown examples.—C.E.S.

E. minima Jacq. (Ref. No. 4445.) Simonsbath, S. Somerset, v.c. 5, Sept. 4, 1918. This gathering mainly consisted of rather large strong specimens . . . . . On Exmoor the species varies much in size, habit, leaf-outline, and shade of yellow flowers.—E.S. Marshall. (*See* "Journ. Bot.", 1919, pp. 169—173.)

E. ——— Barsby, Leics., v.c 55, July 14, 1916.—A. R. Horwood. The large inland form of *E. borealis* Towns., which has sometimes been confounded with *E. brevipila* B. & G.—H.W.P. *E. borealis* Towns.—C.B.

E. curta Wettst., var. *glabrescens* Wettst. (*me judice*). (Ref. No. 4447). Near Simonsbath, S. Somerset, v.c. 5, at 1000 to 1200 ft., Aug. 24, 1918. Rather strong examples of the prevailing Eyebright in that district, where it reaches 1450 feet or more. It seems to agree well with several gatherings named as above by Wettstein, and reminded me of the Scotch forms, when growing. Mr. Bucknall would rather refer it to *E. nemorosa*; but it looks different from the ordinary forms of that.—E. S. Marshall. The habit, etc., will not do for this, and it is almost too glabrous for *glabrescens*. I think it is *nemorosa*, var. *ciliata*.—C.E.S.

Mentha sativa L. (*aquatica* × *arvensis*), var. By Mynde Park Lake, Herefordsh., v.c. 36, August, 1918.—Coll. E. Armitage, Comm. S. H. Bickham. The evidence of *M. arvensis* is not obvious. Is it not a form of *M. aquatica*?—E.S.M. This hirsute coarsely-toothed mint must come, I think, under *sativa* (*arvensis* × *hirsuta*) and it may be the form of this, described by Rouy ("Fl. Fr.") as "*pilosa* (Spr.) H. Braun," having leaves large ± obtuse, strongly toothed, with the teeth acute, straight or concave externally, spreading.—C.E.S.

M. sativa L., *forma*. On grass near the stream, Oare, Exmoor, W. Somerset, v.c. 5, Aug. 20, 1919.—F. Long. I do not think this is a *form*, and should have labelled it simply *M. sativa*.—C.B. Yes. *M. sativa* form.—E.F.L. Here, near Selham, in West Sussex two mints are common; both usually referred to *M. sativa*. One is a slender, softly hairy, woodland (glades in woodlands) plant, with almost grey flowers. The other is a much

stronger plant, with a quite different scent, reddish purple flowers, less hairy, that grows by ditches in moist meadows. This specimen seems identical with the second form. I will try to collect both of ours for the Watson Club next year, if I am at home at the right time.—C.C.L.

M. aquatica × *longifolia* (× *hircina* Hull). Lane above Weston-in-Gordano, N. Somerset, v.c. 6, Aug. 27, 1919.—Ida M. Roper. Very likely right.—E.F.L. Most certainly the spikes have an appearance of *longifolia*, and of the two forms under *M. pubescens* Miss Roper's specimen is certainly nearer *hircina* than *palustris*. But *M. pubescens* Willd. has no existence in his herbarium (which I have seen), and Déséglise, Strail and Malinvaud all refuse to place his name to it. Miss Roper's plant is much rarer than *M. palustris* Sole, the other form placed under *pubescens* by British authors.—A.B. This may or may not be *M. aquatica* × *longifolia*, but it is not *M. piperita sylvestris* of Sole's figure, which Hull quotes for his *M. hircina*. The leaves do not agree. An interesting plant; of which I should like to see more.—C.C.L. The sheet forwarded shows a slender narrow-leaved specimen of *M. pubescens* Willd., but its leaves are not subglabrous above, as they should be for *M. hircina*. If *M. pubescens* is a hybrid between *M. aquatica* and *M. longifolia*, it is curious that its leaves show no trace of the impressed venation characteristic of the latter.—H.W.P.

Thymus [*Serpyllum* L.]. Caldecote, W. Norfolk, v.c. 28, July 11, 1919.—J. E. Little. The capitate form of *T. ovatus* Miller, which equals *T. glaber* of Miller, I consider. I have called it *T. ovatus*, subvar. *glaber*. *T. Serpyllum* is stoloniferous, which this does not appear to be.—A.B.J.

Calamintha arvensis Lamk. In last year's oat stubble, about to be ploughed, top of Tickenham Hill, 500 ft., N. Somerset, v.c. 6, Aug. 16, 1919. Rarely in cultivated ground in Somerset. —H. S. Thompson. This looks like an approach to the var. *canescens*. *C. Acinos* Clairv., var. *cancscens* Coss. Is *C. arvensis* Lamk. really the same species as *C. Acinos* Clairv. ? It has larger flowers, etc.—A.B.

Nepeta hederacea Trev., f. *parviflora* Benth. Rough field, Tickenham Hill, N. Somerset, v.c. 6, May 9, 1918. Fls pistillate, corolla 5 mm. long.—I. M. Roper. Yes; but see "Report Wats. E. C.", 1897—8, p. 16, and "Journ. Bot.", 1913, p. 306, and 1916, p. 65. One flower examined on Miss Roper's specimens had rudimentary stamens only.—C.E.S.

N. hederacea Trev., *forma*. Bank of canal, Stonehouse, E. Glos., v.c. 33, May 15, 1919.—Ida M. Roper. Miss Roper's plan of sending a piece of silk to show the colour of the flowers is an excellent one. It just matches the colour in the plate in "Eng. Bot.", ed. 3. But why *forma*? Miss Roper is so careful a collector that it is a pity she does not state the reason.—A.B. Yes; but why "forma"? unless owing to pale lilac flower—*see* silk pattern. —C.C.L.

Melittis Melissophyllum L. (**1**) Lanes and woods below Pensilva in Lynher Valley, E. Cornwall, v.c. 2, July 1, 1919. (**2**) Denham Bridge, S. Devon, v.c. 3, July 9, 1919. Some Cornish specimens 3 ft. high had large flowers; but Archer Briggs did not countenance Smith's var. *grandiflora*.—H. S. Thompson.

Stachys germanica × *alpina*. Seedlings sent by C. E. Salmon. *See* "Jl. Linn. Soc.", May, 1919. Cult. Ledbury, June 25, 1919. —S. H. Biekham. The *germanica* characters are so preponderant, that without Mr. Salmon's evidence of the hybrid origin, I should not have suspected it in the case of this dried specimen. Is Mr. Salmon sure that his seedlings of the hybrid have not been again crossed with pure *germanica*?—C.C.L.

Littorella uniflora Ascherson. (Ref. No. 4453). River Barle, below Simonsbath, S. Somerset, v.c. 5, Aug. 22, 1918. This tall state, with leaves up to 8 inches long, occurs here and there in the River Barle, about 2 to $2\frac{1}{2}$ miles below Simonsbath, at 900 feet or thereabouts; a very unusual station. It did not show any signs of flowering.—E. S. Marshall.

Chenopodium opulifolium Schrad. Waste heap north of Welwyn Tunnel, Herts., v.c. 20, Oct. 6, 1913.—J. E. Little. De Candolle, "Fl. Fr.", VI. 372, (1815), has the following: "*Chenopodium opulifolium* Schrad. ex Koch inéd.—*C. viride* Loisel. Fl. gall. 145. *C. crosum* Bast. [Figured, but not described, as] *C. opulifolio* Vaill. 'Bot. Par.' t. 7, f. 1. Cette espèce a souvent été confondue avec le *C. leiospermum*. Comme celle-ci, elle a les graines lisses, mais elle en diffère par ses feuilles plus courtes et plus larges, toutes inégalement dentées, souvent obtuses, jamais entières, plus glauques en dessous; par ses grappes plus courtes et plus ramassées." Vaillant's figure is an excellent and unmistakeable one. No enlargement of the seed itself is given. In the "Camb. Brit. Flora" the plate has a drawing much enlarged of the seed which perhaps gives an impression that the rugosity given by Dr. Moss as a character by which the plant may be separated from *C. album*

has actual existence. But an examination of the sheets in the Europæan Herbarium at the Brit. Mus.—especially Billot 2526 (though not fully mature); a sheet from Herb. B. Auerswald 1848, *leg.* Bruekner; a sheet ex Herb. A. H. Wolley-Dod, Flora Calpensis (Gibraltar), No. 621, Naval Recreation Ground, 12 Apr. 1912 (mature)—shows that the seeds magnified some 8 diameters are only finely punctulate, perhaps with slight striation. All these sheets agree with Koch's description ("Synopsis," p. 606). "seminibus lævibus nitidis," the same words in which he describes the seeds of *C. album*, and to the naked eye they are both smooth and shining. Mr. E. G. Baker assents to the description of the seeds on the sheets above mentioned as punctulate, and not rugose. Under a strong lens the seeds of the Welwyn Tunnel plant are finely striate-punctulate, black and shining, but not smooth as in *C. album*. They agree with those of *C. opulifolium* [× *serotinum* ?] from Fazakerley, S. Lancs., v.c. 59, Sept. 1912, sent to the B. E. C. 1912, by J. A. Wheldon, and passed by J. Murr and E. S. Marshall as *C. opulifolium*. Joseph Woods, in "Tourist's Flora," 1850, p. 314, writes: "In all the specimens which I possess as the *C. opulifolium* of Duby, or the *C. viride* of Coss & Germ., most of the leaves terminate in a complete angle, generally about a right angle, or in an acute tooth. A few only of the lower leaves are really obtuse. The proportion of entire upper leaves is much smaller than in *C. album*."—J. E. Little. The Welwyn Tunnel plant seems to me normal. I expect Dr. Moss called the seeds rugose, as they are often called so in other floras. They are certainly better described as you do.—A.J.W. I have re-examined the Welwyn Tunnel plant, and am in agreement with the naming. The seeds of *C. album* and *C. opulifolium* are practically identical as regards smoothness; the point lies in those of *C. album* being ± acutely margined, while those of *C. opulifolium* are decidedly obtusely rounded at the edge. The broad leaves, particularly near the apex of the spikes, seem also a good character of *C. opulifolium*.—C.E.S. (*See* Report, 1913—14, p. 455.)

Salicornia dolichostachya Moss × *herbacea* L., f. *stricta*. (Ref. No. 341 A). Pagham, W. Sussex, v.c. 13, Sept. 12, 1918 (*teste* E. J. Salisbury).—W. C. Barton.

S. herbacea L., f. *stricta*. Pagham, W. Sussex, v.c. 13, Sept. 12, 1918.—W. C. Barton. Yes.—C.E.S.

S. ramosissima Woods. (1) Sidlesham, W. Sussex, v.c. 13, Oct. 10, 1916 & Oct. 11, 1918.—J. E. Little. Yes; the apparent

variation in the attenuation of the spikes is, I think, mainly due to different stages of ripening.—E.J.S. Yes; quite normal.—E.S.M. (**2**) Quarter mile below Dell Quay, W. Sussex, v.c. 13, Oct. 13, 1918 (*det.* E. J. Salisbury).—J. E. Little. Correct, I believe, but the specimens received are not the well-developed, many-branched state.—E.S.M.

S. ramosissima Woods, *forma*. (Ref. No. 342 A). Drier part of salt marshes, Pagham Harbour, W. Sussex, v.c. 13, Sept. 12, 1918.—W. C. Barton. These are, I think, merely a state of *S. ramosissima*, which approaches *S. gracillima* in habit. It is a form which occurs when the plants are abundant or densely crowded, and have suffered from intertidal drought.—E.J.S.

S. gracillima Moss ? × *ramosissima* Woods. Sidlesham, W. Sussex, v.c. 13, Oct. 11, 1918.—J. E. Little. These vary greatly in the regularity of branching and shape of spike. So far as one can judge from dried specimens, I am inclined to regard them as *S. gracillima* × *ramosissima*, with decided approach to the former putative parent.—E.J.S. Looks quite right.—E.S.M.

S. disarticulata Moss. (Ref. No. 344 A). Opposite West Itchenor, W. Sussex, v.c. 13, Sept. 16, 1918.—W. C. Barton. Yes; nice examples.—C.E.S. Correct, I believe.—H.W.P.

S. disarticulata Moss × *ramosissima* Woods. Dell Quay, Appledram, W. Sussex, v.c. 13, Oct. 13, 1918. Coll. J. E. L., Oct. 13, 1918. A small patch of about 20 sq. yds on shallow mud resting on shingle had growing on it *S. ramosissima*, of which four sheets are sent; also plants which I sent to Dr. Salisbury, marking them B and C, as to which he writes: "B and C are *S. disarticulata* × *ramosissima*" [except a few determined as *S. disarticulata* which have been taken out]. "In nearly all the 'C' rudimentary lateral flowers can be detected in one or more cymes. There are a few uniflorous throughout (at all events, I did not detect any rudimentary lateral flowers), but the character of the spike seems to indicate hybrid origin nevertheless" (*in litt.* Dec. 22, 1918).—J. E. Little. Right, I believe. Not pure *disarticulata*, but the numerous solitary flowers indicate that as one parent.—E.S.M. Correctly named by Dr. Salisbury, I think. Flowers solitary, or in twos or threes *on the same plant*; mostly solitary.—C.E.S.

Polygonum Persicaria L., var. *ruderale* Meisner. Waste ground, Eastville, Bristol, W. Glos., v.c. 34, Oct. 3, 1919.—Ida M. Roper. This agrees with the description of var. *ruderale* in "Camb. Brit.

Flora." It should be noted that *P. Persicaria* may occasionally have a few stalked glands on the peduncles, as in this plant of Miss Roper's.—C.E.S.

Rumex pulcher L. × . Chichester, W. Sussex, v.c. 13, Aug. 1, 1918.—R. J. Burdon. This plant is in rather too young a state for identification. *R. pulcher* L. is one of the parents, and my friend Mr. Pugsley suggests *R. obtusifolius* L. as the other. The principal hybrids of *R. pulcher* are :—

R. pulcher × *obtusifolius* (*R. Ogulinensis*) Borb. Mag. bot. Lap. III. (1904), 49 ; Beck in Reichb. Icones Fl. Germ. XXIV. Found in England by Dr. Trimen.

R. pulcher × *conglomeratus* (*R. Muretii*) Hausskn. Mitt. Geogr. Ges. Thür. III. 73 (1885) ; Beck in Reichb. Icones Fl. Germ. XXIV. 46.

R. pulcher × *crispus* Trimen Journ. Bot. XVII. 251 (1879).

R. crispus × *pulcher* (*R. pseudopulcher*) Hausskn. Nyman Conspec. Suppl. 271 (1890) ; Beck in Reichb. Icones Fl. Germ. XXIV. 47, t. 191, fig. 4—6.—E.G.B.

Euphorbia Cyparissias L. Rough meadow, away from houses, Welwyn, Herts., v.c. 20, June 10, 1918.—Coll. R. Morse. Comm. J. E. Little.

Mercurialis perennis L. Large broad leaves (40—60 mm. broad), more acuminate than usual, thinner, paler green, and with small sharper serrations. Moggs Wood, Tickenham Hill, N. Somerset, v.c. 6, Aug. 20, 1918. Not the var. *ovata* Hoppe & Sternb., which has "almost sessile leaves."—H. S. Thompson.

Ulmus montana Stokes, appr. var. *laciniata* Trautwetter ? Great Wymondley, Herts., v.c. 20, July 3, 1918. The "Camb. Brit. Flora" describes *U. glabra* Huds., forma *grandidentata*, as having "Laminæ larger, thicker, and more hairy than in the common form, often with one or more very large teeth on each side of the central one." Mr. A. B. Jackson allows that these sheets approach var. *laciniata*, which I take to be synonymous with Dr. Moss' forma *grandidentata* (= *U. corylacea*, var. *grandidentata* Du Mortier).—J. E. Little.

U. stricta Lindley ? Appledram, W. Sussex, v.c. 13, Oct. 5, 1918. At Appledram there are two rows of trees. Near Old Park Farm a few trees On the other side of Chichester, near The Broyle, several long rows. The leaves when fresh were mostly incurved from the midrib. The trees are pyramidal in shape, with rather straight ascending lateral branches.—J. E. Little.

U. glabra Mill., var. *cornubiensis* Loud. Appledram, W. Sussex, v.c. 13, Apr. 5, May 1, and June 7, 1919.—R. J. Burdon. These sheets are from the same row of trees as the sheets of mature leaves which I distributed in 1918 under the name "*U. stricta* Lindley." (*See* note to paragraph above).—J. E. Little.

U. vegeta Lindley. (1) Near St. Ippolyts Brook, The Folly, Hitchin, Herts., v.c. 20, March 9, May 26, and Aug. 9, 1918. Samaras, June 10, 1917. (No samaras were produced this year). Of 50 flowers examined Mar. 9, 1918, 25 had 5 stamens and 25 had 6 stamens. Extremities of lateral branches slender down-drooping. Summer shoots hairy. Shoots of second year glabrescent. Tree about 80 feet high, upper branches somewhat ascending. Mr. A. B. Jackson assented to this name.—J. E. Little. (2) N. Walls, Chichester, W. Sussex, v.c. 13, Apr. 8, May 1, and June 7, 1919.—R. J. Burdon. I saw these young trees, planted to replace decayed ones (? of the English Elm—I hardly dare to say of *U. campestris* L., owing to the confusion of the nomenclature) inside the north walls at Chichester in 1918, and suggested this name.—J.E.L. Yes; but the foliage is immature, and should have been collected at least a month later.—A.B.J.

U. nitens Moench × ? Nine Springs, Hitchin, Herts., v.c. 20, March 9 and Sept. 5, 1918. (*See* B.E.C. Report, 1918, p. 525).—J. E. Little. Probably a hybrid, as it is not exactly *U. nitens*.—A.H. Nearest to *U. nitens*, I think.—A.B.J.

Alnus glutinosa Gaertn., var. *macrocarpa* London. (Ref. No. 357). One tree, 16 ft. high, near Perryfield, Petworth, W. Sussex, v.c. 13, Sept. 17, 1918.—W. C. Barton.

A. glutinosa Gaertn., var. *macrocarpa* Loudon? S. of Old Park Wood, Fishbourne, W. Sussex, v.c. 13, Sept. 13, 1917, and Oct. 8, 1918. Mr. A. B Jackson prefers to name it "forma *macrocarpa* Callier, Fedde." (*See* Wats. E.C. Rept., 1917, p. 74. *Note*. On p. 75, line 1, the dimension "9 × 10 mm." should read "19 × 10 mm."). Mr. W. C. Barton and myself can find no correlation between the leaf-characters and the size of the fruit. So far as observation to present date carries us, we accept Mr. Jackson's reduction of var. *macrocarpa* Loudon to f. *macrocarpa* Fedde. Var. (or forma) *microcarpa* occurs in Hants. and Wilts. (*fide* W.C.B.), in Kent, Sussex, and Herts. (*fide* J.E.L.). In further observations it will be of some assistance if the age and height of the trees is noted.—J. E. Little. Although this large-fruited variety is referred to in the "Camb. Brit. Flora" as a rare

plant, and one British locality only—Chippenham Fen—is cited, it seems likely that it is more or less widely distributed, and has been overlooked. There is an example in *Herb. Mus. Brit.* from Llanfairfechan [Carnarvonshire] showing fruits up to 25 mm. long, and another, from Hampstead, with equally large fruits, but leaves more obovate and narrowed below. It also grows in a small swamp on Wimbledon Common, where there are several trees about 20 ft high, which develop very large broad foliage, and pistillate catkins up to 32 mm. in length (dry). These trees show great variation in the size of the fruits, as remarked by Mr. A. B. Jackson in the Report of 1917.—H.W.P.

Salix alba × *pentandra*. Sholden, near Deal, E. Kent, v.c. 15, April, 1914.—L. Day. Right, apparently.—E.F.L.

S. *aurita* L. Eaker Hill Wood, Chewton Mendip, N. Somerset, v.c. 6, April 23 and July 4, 1919.—Ida M. Roper. Yes.—E.F.L.

Orchis incarnata L. × ? (Fl. dull flesh-coloured). Marham Fen, W. Norfolk, v.c. 28, July 17, 1919. These were submitted to Dr. Druce, whose remarks practically left none of them as pure *O. incarnata*. Those with dull flesh-coloured flowers have mostly leaves of *prætermissa* character. The time at which they were in flower is also late for *O. incarnata*. There is in Marham Fen a vertical range of about 5 feet upwards from summer water level. The plants were generally growing 2—3 feet above this water level.—J. E. Little. Yes; certainly *O. incarnata* L. It is the Wicken Fen plant.—C.C.L. The three sheets sent (one corrected to *O. incarnata* × *prætermissa* [by G. C. Druce]) seem to me all to represent one form, which by its narrow erect unspotted foliage and relatively narrow and reflexed lip is referable to a restricted *O. incarnata*, from which the more robust form, with larger (but still unspotted) leaves and broader and less reflexed labellum, recently re-named *O. prætermissa* Druce, is excluded. The labels do not indicate whether any other form was growing in the fen with which hybrids might be produced, but I can see no evidence of hybridity. The flowers of these specimens appear in every case to be more or less pale purple in colour, and not of the whitish or light salmon tint characteristic of some forms of *O. incarnata*, and often described as flesh-coloured or ochroleucous. The date of flowering of these plants is very late. I have collected what appears to be exactly this form in Wales, and the flesh-coloured *O. incarnata* in Suffolk before the end of May.—H.W.P. In 1919, in Norfolk, there was a long drought from the end of May to the beginning of July.—J.E.L.

O. prætermissa Druce. Luffenham, Rutland, v.c. 55, May 15, 1916.—A. R. Horwood. Yes; but I have not yet been able to understand why *O. prætermissa* Druce is not *O. latifolia* L.—C.C.L. [Later *in litt.*] *O. prætermissa*, which grows within half a mile of my house, and has there been recognised by Dr. Druce, is identical with the plant that I have collected in France, which is known to French botanists as *O. latifolia*.—C.C.L. Yes: this is what I take to be *O. prætermissa*.—H.W.P.

Polygonatum officinale All. Rocky slope of Leigh Woods, N. Somerset, v.c. 6, May 31, 1919. Still, fortunately, in some quantity very locally, growing with *Convallaria*.—H. S. Thompson. Agreed.—C.C.L.

Allium vineale L., var. *bulbiferum* Syme. W. side of Chichester Harbour, W. Sussex, v.c. 13, Aug. 4, 1919.—R. J. Burdon. I think correct.—H.W.P.

Fritillaria Meleagris L., f. *alba*. Field, Elmore, E. Glos., v.c. 33, Apr. 26, 1918. Growing in large quantity, white flowers only. Is this form a distinct variety? It is stated to blossom a fortnight earlier than type.—Coll. J. W. Haines. Comm. I. M. Roper.

Juncus bufonius L. (Ref. Nos. 454 A, B, C). Paths and tracks on Countisbury Common (alt. 1000 feet), N. Devon, v.c. 4, Aug. 5, 1917.—W. C. Barton. Ref. No. 454 A. Several on my sheet are very small specimens of *J. bufonius*, var. *congestus* Wahlb. (1820); the synonymy of which is *J. mutabilis* Savi (1798); *J. hybridus* Brotero pro parte (1804); *J. congestus* Schousboe in E. Meyer (1822); *J. insulanus* Viv. (1824); *J. bufonius*, var. *fasciculatus* Koch (1837); *J. fasciculatus* Bertol. (1839) non Schousb.; *J. bufonius*, var. *fasciculiflorus* Boiss. (1845); *J. querioides* Pourret ex Willk. et Lange Prodr. (1861); *J. bufonius α compactus* Celak. (1869); *J. bufonius β glomeratus* Regel (1880). According to Buchenau this plant is one of the many forms of *J. bufonius* which do not show any sufficiently constant character to be maintained in the rank of variety. In the winter of 1907—8 I found this plant from many parts of the world in the great herbaria at Geneva; and I published in "Bulletin de l'Herb. Boissier" (1908) a "Note sur les *Juncus bicephalus* Viv. et *J. bufonius*, var. *fasciculatus* Koch," in which it was pointed out that in Coste's "Flore de la France," III., p. 446, the plant he figures and describes as *J. bicephalus* Viv. is not that rare Rush from Corsica, Sardinia, and Majorca (which Buchenau in his monograph of Juncaceæ in Engler's "Pflanzenreich," 1906, places as a variety

of *J. pygmaeus*), but *J. bufonius*, var. *congestus*. It is possible some of Mr. Barton's specimens numbered 454 c and 454 a may come under the var. *ranarius*, of which I have no description. There is also the var. *minutulus*, which Albert and Jahandiez in 1908 described thus: "Plante très petite, 1–2 centimètres, cespiteuse; tiges plus courtes que les feuilles, portant à leur extrémité une ou rarement deux fleurs."—H.S.T.

J. tenuis Willd. (1) Reigate Heath, Surrey, v.c. 17, July 29, 1916. First observed in this locality in 1915. (*See* B.E.C. Rept., 1915, p. 375).—C. E. Salmon. (2) Found on rides in Leigh Woods, N. Somerset, v.c. 6, at about 200 feet above the river, Oct. 1918, and afterwards in Dec., over a still wider field, but never off the rides. Larger specimens, up to 2 feet high, than those sent last year from the Avonside cart road.—H. S. Thompson. Yes; it is strange how this species has become distributed over England, Ireland, and Scotland during recent years. It is now on record for about 30 c's and v.-c's in Scotland and England, and in six of Mr. Praeger's divisions of Ireland. In Westernen, v.c. 97, I think there is no doubt it was introduced in compressed hay from America. In N. America it varies greatly, and is recorded under seven or more names as species or varieties. Michaux, in his "Fl. bor.-Amer.", p. 191, 1803 (four years after Willdenow named it in 1799), called it *J. bicornis*, a very appropriate name.—A.B.

J. filiformis L. Near Lodore, Derwentwater, Cumberland, v.c. 70, Sept. 23, 1919.—Coll. J. W. Haines. Comm. Ida M. Roper. Yes; the specimens sent me are incomplete, but unusually large.—H.S.T. The sheet shows fine fruit, but a portion of the rootstock to show the habit of growth should have been added.—H.W.P.

Potamogeton lanceolatus Sm. Lligwy River, Anglesey, v.c. 52, Aug. 1919.—J. E. Griffith. The fact that during the last ten years two botanists had been unable to find this in the Lligwy caused Mr. Griffith to go and gather it this year.—A.B.

P. [*obtusifolius* Mert. & Koch]. Dyke, near Primrose Hill, S. of Doddington, Cambs., v.c. 29, July 9, 1919.—J. E. Little. Not *P. obtusifolius*, but good examples of *P. Friesii*. I think a new station for Cambs.—A.B.

P. pusillus L., [var. *brevifolius* Nolte]. Llyn, near Talwrn, Llangefni, Anglesey, v.c. 52, July, 1918.—J. E. Griffith. Not

the var. *brevifolius* Meyer (Asch. et Graebn. "Syn."), which has leaves only half this length. These are simply young undeveloped forms of normal *pusillus*."—W.H.P.

Zostera nana Roth. Mud banks in Strangford Lough, Grey Abbey, co. Down, growing in shallow water. Sept. 7, 1918. *Zannichellia* grows with it, and some may be mixed.—C. H. Waddell.

Cyperus fuscus L. Walton peat-moor, N. Somerset, v.c. 6, Aug. 14, 1919. On N. side of 2 rhines, locally plentiful this year after drought; hardly visible six weeks later in ranker vegetation of replenished ditches.—H. S. Thompson. Very nice specimens.—E.F.L.

Carex arenaria L., var. *remota* Marss. Marshy ground, Weston-super-Marc, N. Somerset, v.c. 6, June 24, 1919.—Ida M. Roper. Usually Marsson's plant is a larger and taller plant than Miss Roper's specimens. He describes it as "Caule elato gracili apice nutante; spiculis inferioribus 2—3 remotis; folio involucrali plerumque longissimo" ("Fl. Neu-Pomm.", 1869, p. 523).—A.B. Yes; but not extreme.—C.E.S. I have two W. Norfolk sheets of *C. arenaria* L, gathered by myself—(1) Hunstanton, Aug. 1878; (2) Stow Bardolph, July 22, 1917, an inland station on an exposure of greensand, 40 ft. above sea-level, not recorded in Nicholson's "Flora of Norfolk." On both sheets, which are more robust than Miss Roper's, the three lower spikelets are separated by intervals of from 6—10 mm., and the bracts of the lower spikelets are from 15—60 mm. in length. The length of the lower bract on one stem of a sheet of Miss Roper's is about 13 mm., and twice as long as the (immature) spikelet. In the other stems it does not appear to be longer than the spikelet.—J.E.L. There is not much in this variety, which is not infrequent on the coast about Burnham-on-Sea, and I doubt if it remains constant.—H.S.T. I know this form well; but *C. arenaria* varies so much according to soil and exposure that I hardly consider such forms as true varieties in the botanical sense. In the acres of this *Carex* on the Suffolk warrens anyone could name dozens of varieties, some due to abortion caused by insects.—A.H.E.

C. paradoxa Willd. (*See* Wats. E.C. Rept., 1914, p. 513). Fruits. E. of Shouldham Warren, W. Norfolk, v.c. 28, July 10, 1919. The station is not the same as that from which plants were distributed to the W.E.C. in 1914, but lies about a mile away, on the other side of Shouldham Warren, in a swamp with

Carex Oederi, *C. œdocarpa*, and *C. Oederi* × *œdocarpa*.—J. E. Little. Yes; fruit in good condition to show the prominent ribs and non-winged beak so characteristic of this species.—C.E.S. Your fruits answer well to the figure of the fruit of *paradoxa* given by Lindman ("Sv. Fl.", 1918, p. 120), and also, but not quite so well, to the figure in Andersson's "Pl. Scand. Cyp.", t. III., f. 23. These are from a station not given in Nicholson's "Fl. Norf." At Hockham, W. Norfolk, Mr. Robinson found beautiful specimens of it.—A.B.

C. paniculata L., forma *compacta* ? Caldecote Fen, W. Norfolk, v.c. 28, July 7, 1919. One sheet was sent to Mr. G. C. Druce, who passed it "for one specimen," as f. *compacta*.—J. E. Little. Unsafe to judge from a single sheet; one wants a series. The spike is certainly *rather* more compact than usual, but I see nothing else to take it away from type.—C.E.S.

C. Pairæi F. Schultz ? Dry bank under wood, near Beechamwell, W. Norfolk, v.c. 28, July 11, 1919. The material is not as good as it should be. Dr. G. C. Druce saw a sheet, and thought it probably *C. Pairæi*. But (*in litt.* 18 Oct. 1919) he writes: "I like a small fruit with rounded shoulders and short beak. Those [with fruit tapering gradually into the beak] go under *muricata* L. [*contigua* Hoppe], where there is a membranous margin to the beak." It must be admitted that in these sheets the fruit is not so broad in proportion as in some of Schultz's fruits on his own sheet (in Herb. Brit. Mus.), but even in this latter there is some variation. A couple of miles away from this present station I found *C. muricata* L, near to Caldecote Fen, on a dry bank (with *C. divulsa*). The fruits were of normal length (6 mm.). The suggestion has been made that the dry weather last June may account for small fruits. As to this point Dr. Druce writes: "I have grown *C. muricata* in dry soil in my garden, and even in this dry year the fruits are normal." They were normal this year at Hitchin, by the roadside (about 5·50 mm. long, tapering into a long beak).—J. E. Little. Many of the fruits are certainly like those of *C. Pairæi*, but on the whole I should refer these specimens to *C. contigua* Hoppe. The fruits—especially the apex—are almost the same as those of *contigua*, still some are very like *C. Pairæi* F. Schultz.—A.B. I think correctly named. —H.W.P. I agree that these specimens are *C. Pairæi*; the shape of the perigynium is unlike that of *contigua*, and the habit is right. A new record for v.c. 28 ?—C.E.S.

C. ——— Round sandpit (greensand), near Blackborough Priory, W. Norfolk, v.c. 28, July 10, 1919. Fruits about

3·75 mm. long, turning brown when ripe; beak short.—J. E. Little. The name of *C. Leersii* F. Schultz does not seem applicable to our plant, which is really *pseudo-divulsa* of Syme ("Eng. Bot."). If you use Schultz's name, I suppose these may come under it, but I have not seen a specimen named by Schultz, and in *Carex* this is necessary.—A.B. Perigynia too gradually narrowed for *C. Pairæi*. Kükenthal named plants of mine from England *C. Leersii* [so this does away with the first contention, *i.e.* Mr. A. Bennett's objection to the name *C. Leersii* F. Schultz]. I should like to see the plant growing, but at present I leave it under *Leersii*.—G.C.D. This did not strike me as *pseudo-divulsa*, but a form nearer to *muricata*. British botanists vary in their opinions as to *C. Leersii* and *C. Pairæi*, as it seems to me, and I should not myself feel certain of naming a plant as either.—A.H.E. This is a most interesting but rather puzzling plant. It has perigynia and nuts smaller than those of *Pairæi*, *contigua* and *Leersii*, whilst their shape (more elongated) strongly recalls *divulsa*. The perigynium is, however, broader near the base and the beak more strongly toothed. It will be noticed, too, that the lower spikelets, in some of the examples, are quite separated, and that the perigynia are *ascending-spreading*, as in *divulsa*, and not *divergent* as in *Pairæi* and *Leersii*. The nuts I examined did not appear at all healthy, and some were decidedly sterile and empty. I suggest that Mr. Little's plants may be *C. Pairæi* × *divulsa*, and should be very glad to have a root to grow and test in the garden. It would be interesting to know if *C. divulsa* occurred in the neighbourhood.—C.E.S. A nut from a sheet I have mounted appears healthy. Its proportions are about 2·1 mm. long and 1·75 mm. broad, and the upper shoulder is rather more tapered off than the base, *i.e.* its proportions are rather those of *divulsa* than of *Pairæi*, in which the nut ("*obtuse quadrata*") has length and breadth approximately equal, and the rounding at the shoulders similar to that at the base.—J.E.L. Mr. Bucknall and I have spent some time over this plant, with the result that we are inclined to agree with Mr. Salmon. Hybrids do sometimes produce a proportion of good fruit—usually a small one. I fancy that a hybrid often carries a peculiar facies, quite indescribable, that suggests its cross-bred origin, and this plant, in my eyes, has it.—J.W.W. Of the four spikes on the sheet sent only one has normally developed perigynia, and it seems likely that the plant is a hybrid. If so, the parentage suggested by Mr. Salmon (*C. Pairæi* × *divulsa*) seems most probable.—H.W.P.

C. elongata L. Near Billingshurst, W. Sussex, v.c. 13, June 8, 1918. In profusion over a small area where it was discovered some years ago by Mr. W. H. Beeby, this being its second Sussex station. Some of the specimens I gathered possessed a long bract (the most extreme about 23 cm. long) at the base of the spike. Hooker ("Stud. Fl.") says "bracts 0." Babington ("Man.") "bracts none, or one very short." Syme ("Eng. Bot.") "Spike . . . . without a foliaceous bract at the base." Andersson ("Pl. Scand. Cyp.") "spicnlis . . . ebracteatis." However, Ascherson & Graebner ("Syn. Mittel. Fl.") state that the lowest bract is sometimes leaflike, a description which exactly fits my Billingshurst gathering, and makes it quite unnecessary that a new name should be suggested for this bracteate state.—C. E. Salmon.

C. aquatilis Wahl., var. *virescens* And. Marsh by Derwentwater, Cumberland, v.c. 70, July 15, 1919. Of the many described forms of *C. aquatilis*, this Derwentwater plant seems to agree well with Andersson's *virescens* ("Pl. Scand. Cyp." 46, 1849), having tall stems (two feet or more), long leaves and bracts overtopping the spikes and fruit exceeding the blunt glumes. Mr. A. Bennett approves this name. *C. aquatilis* has been recorded already for v.c. 69, Lake Lancashire (A. Bennett "Naturalist," 1897, p. 77), where Mr. R. L. Praeger found it near Windermere, but it has not, I believe, been before reported from v.c. 70, Cumberland, where I found it growing in abundance, not confined to one spot, by Derwentwater.—C. E. Salmon. The distribution of *aquatilis* in Great Britain and Ireland is a puzzle. We must go to the United States for an example. Yet this may be misleading, as specimens of *aquatilis* from U.S.A. are by no means all correctly named, and although Prof. Bailey, in his "Preliminary synopsis of North American Carices" (Proc. Am. Acad. Arts and Sciences, New Series, XIV, (1886), p. 84), says it grows "from New England across the continent and northward," this is not justified by specimens. The winters in New England are colder than in Wales or Kerry in Ireland, and the summers hotter, yet we have *aquatilis* in Kerry and Wales, but nowhere else in Europe south of Ingria (Russia), c. 59° N. lat. In Kerry (at c. 52° N. lat.) the climate is mild and equable ; yet there we have a flora quite unlike Ingria or New England. One can understand *aquatilis* growing in Caithness or even Cumberland, but the Irish station is an anomaly.—A.B.

C. digitata L. Near Symonds Yat, W. Glos., v.c. 34, June 13, 1916.—L. B. Hall. Yes.—A.B.

C. helodes Link (*laevigata* Sm.). (1) By tributary of R. Lynher, E. Cornwall, v.c. 2, July 1, 1919. (2) Wood in Workham Valley, Dartmoor, S. Devon, v.c. 3, July 7, 1919.—H. S. Thompson. Correct.—A.B.

C. distans L. Caldecote Fen, W. Norfolk, v.c. 28, July 16, 1919.—J. E. Little. The inland form. Had my late friend, C. B. Clarke, of Kew, lived, he intended, in the Monograph of the Order he was engaged on at his death, to describe the seaside form as *C. Vikingensis*, as he considered Linnæus' description applied to the inland form.—A.B.

C. flava L., var. *lepidocarpa* (Tausch). Caldecote Fen, W. Norfolk, v.c. 28, July 7, 1919. A sterile plant also occurred, for which Dr. G. C. Druce suggested *C. lepidocarpa* × *fulva*. *C. Hornschuchiana* × *lepidocarpa* Haussku. = *C. Leutzii* Kneucker (Kükenthal). It was nearest *lepidocarpa*.—J. E. Little. I believe correct.—A.B. This is certainly the plant so called in Britain, and the identification is probably correct.—A.H.E.

C. [*Oederi* Retz.]. Throwleigh, S. Devon, v.c. 3, June, 1918. —W. R. Sherrin. Beaks too long and too reclining for *Oederi*; rather *C. flava* L., var. *aedocarpa*.—A.B.

C. lasiocarpa Ehrh. Caldecote Fen, W. Norfolk, v.c. 28, July 7, 1919. This occurs also in Shingham Fen, and in Marham Fen.—J. E. Little. Correct; good specimens.—A.H.E. In the last Swedish Flora (Lindman, 1918) the author doubts this being the same as *C. filiformis* L. Ehrhart published his name in the Hannover. Mag. IX., 132 (1784). The *filiformis* of Linnæus is described in the 1st ed. of the "Species Pl.", II., p. 976 (1753), but it is curious that Linnæus does not mention the hairy fruit. It appears that the reference to *filiformis* is due to Goodenough, who published it in "Trans. Linn. Soc." II., 172, t. 20, fig. 5 (1794). Kunth, in his "Enum. Pl." II., p. 484 (1837), accepts Goodenough's reference, and has *lasiocarpa* as a synonym. The only other name given to it about this time was *C. splendida* Willd. "Fl. Berol. pr.", 33, (1787)!—A.B.

C. acutiformis Ehrh. × *riparia* Curt. Peaty enclosure, Catcott Burtle, N. Somerset, v.c. 6, June 17, 1918. Fruits mostly sterile.—Ida M. Roper.

Anthoxanthum odoratum L., var. *villosum* Lois. Pasture, Sneyd Park, Bristol, W. Glos., v.c. 34, May 22, 1919.—Ida M. Roper. Yes, the glumes in this are ciliated with longer hairs than usual, and I expect it comes under Opiz's var. *ciliatum*, which is only a form.—A.B.

Polypogon monspeliensis Desf. Thorney Is., W. Sussex, v.c. 13, Oct. 11, 1916. Prebendary Burdon tells me that the station is now under water, and that the plant has disappeared. Not very long before his death Mr. E. W. Hunnybun wrote for a sheet of this set, in order to complete his drawings of the plant. Compared with the specimens distributed to the W. E. C. in 1918, by Mr. White and Mr. Hall, the growth (1 foot or more) is much more robust.—J. E. Little.

Calamagrostis canescens Druce. Mildenhall Road, Littleport, Cambs., v.c. 29, July 14, 1919. In a ditch by the roadside about 2 miles from Littleport.—J. E. Little. No doubt this is the *Calamagrostis*, though gathered rather late. A re-examination of our species is needed, as is the case with the whole genus in Europe, no two authors agreeing as regards nomenclature, hybrids, species, etc. I am inclined to think that when our plants come to be critically examined it will be found that we possess more species than our Floras record.—A.B.

Deyeuxia neglecta Ehrh. Stow Bedon, W. Norfolk, v.c. 28, June, 1918.—Coll. J. Robinson. Comm. A. Bennett. The name and position of this plant is by no means settled. *Calamagrostis* should be used for *Deyeuxia*—as Hackel says, "Sink *Deyeuxia* in *Calamagrostis*." The older authors, Timm, Ehrhart, and others, always placed this plant under *Arundo*. Throughout the area which it occupies the W. Norfolk plant varies considerably.—A.B.

Phragmites communis L., forma. Marsh between Sidlesham and Pagham, W. Sussex, v.c. 13, Sept. 12, 1918. Growing on the drier ground at the edge of the marsh. Still further reduced forms appeared on the sandy banks near the sea and seem to agree with the description of var. *nigricans* Gren. & Godr. Is the latter more than a form ?—W. C. Barton.

Poa bulbosa L. Walmer, E. Kent, v.c. 15, 1919.—L. Day. Yes, I suppose on the shingle, as I remember no sandy places like the Deal Sandhills. A station not given in Hanbury and Marshall's "Flora of Kent," p. 402 (1899).—A.B. These plants grew on the Walmer beach among the shingle and loose earth and grass some little way above high water mark. It is also found among the sandhills behind Deal and Sandwich, as mentioned in the "Flora of Kent."—L. Day (*in litt.*).

Glyceria maritima Mert. & Koch. Pagham Harbour, W. Sussex, v.c. 13, June 11, 1919.—R. J. Burdon. Yes.—C.E.S. & H.W.P.

G. Borreri Bab. Pagham Harbour, W. Sussex, v.c. 13, June 11, 1919.—R. J. Burdon. At such an early date the panicles are hardly expanded to show the *Borreri* shape, which is very decided. But I suppose the majority are *G. Borreri.*—A.B. I do not think any of the plants (sent by Prebendary Burdon) which I have seen are true *G. Borreri.* Most of them are, I am convinced, hybrids of *G. maritima* with *G. distans* or *G. Borreri.*—G.C.D. I made an examination of all the sheets labelled *G. Borreri.* The length of the flowering glume is 3—4 mm. It is sometimes obtusely pointed, sometimes obtuse-apiculate. The long branches of the panicle are mostly in pairs. The leaves are mostly involute, and the ligule obtuse but not truncate. The rhachis of the panicle is sometimes pubescent. The anthers were in one case six times as long as broad (as compared with $2\frac{1}{2}$ times as long as broad in *G. Borreri*). Most of the sheets appear to me to be *G. maritima*, but one or two, as far as I can judge from rather fragmentary material, are *G. distans* (ligule truncate), and one other may be what Dr. G. C. Druce has named *G. distans* × *maritima.* I cannot find any example which agrees with sheets of *G. Borreri*, passed by Mr. A. Bennett, from the same station, in 1917 (*See* Report, 1917—18, p. 81). Mr. Bennett does not consider that the length of the fl.-glume excludes *G. Borreri.* Bentham gives 1 line (2 mm.) for the glumes of *G. distans* (including *G Borreri*), and Hooker says, "*G. Borreri.* Spikelets smaller than in *G. maritima.*" Babington says, "Spikelets and flowers (of *G. Borreri*) half the size of those of *G. maritima.*" That *G. Borreri* was present at this station in 1917 is established by the specimens then distributed. The vegetation of the foreshore at this date was comparatively open, but it has since closed up appreciably. Mr. Salmon and Dr. Druce both assent to the suggestion that the disappearance of *G. Borreri* may be due to this closing up of the vegetation, and both remark that it likes elbow-room.—J.E.L. As far as I can see there is not a single example of *G. Borreri* in the whole gathering. It seems to me to be all *G. maritima*, with possibly the exceptions you have picked out as *G. distans*, and the hybrid (which I confess I do not know).—C.E.S.

Festuca sciuroides Roth. Exmouth, S. Devon, v.c. 3, June, 1918.—W. R. Sherrin. Yes, a small state.—C.E.S.

F. ——— Exmouth, S. Devon, v.c. 3, June, 1918.—W. R. Sherrin. *F. rubra* L., a very variable species, there being in Europe alone some 20—30 forms.—A.B.

F. ——— Exmouth, S. Devon, v.c. 3, June, 1918.—W. R. Sherrin. *F. oraria* Dumortier = *F. arenaria* Osb.—C.E.S. This plant seems identical with that distributed through the Club in 1902—3 as *F. rubra* L., var. *grandiflora* Haekel. It apparently differs from var. *arenaria* Fr. in having all the leaf-sheaths glabrous.—H.W.P.

F. elatior L., var. *arundinacea* (Sehreb.). Fishbourne Marsh, Chichester, W. Sussex, v.c. 13, July 18, 1918.—R. J. Burdon. Correct.—A.B. Yes, but gathered too early to show the spreading paniele-branches. The rough sheaths are apparently confined to the very base of the stem.—C.E.S.

F. gigantea Vill., var. *triflora* Koeh. (Ref. No. 351.) Edge of wood, Lodsworth, W. Sussex, v.c. 13, Aug. 24, 1918. Growing with type and a few intermediates. The ± erect panicle makes the var. noticeable; but the plants showed a tendeney to vary in this respect according to the number of spikelets and size of paniele; and the amount of droop may be determined by the weight of the spikelets. As to number of flowers in each spikelet, I found 3 most frequent, and often on the same plant some spikelets with 2 or 4. Syme ("Eng. Bot.") says, "it is little more than a smaller state of the plant, and it is diffieult to draw any line between it and var. *a genuinus*." This may well be true, but it would be interesting to know the result of investigation into depauperate forms of grasses (cp. *Phalaris minor*, f. *gracilis*, and *Lolium perenne*, f. *tenue*). If they were due only to stony ground one would expect to find them more frequently. Is the offspring normal or like the parent?—W. C. Barton. Correct.—A.B.

Triticum junceum L. Exmouth, S. Devon, v.c. 3, June, 1918.—W. R. Sherrin. Yes.—A.B. & C.E.S.

Hymenophyllum tunbridgense Sm. Golitha Falls (of R. Fowey), E. Cornwall, v.c. 2, July 3, 1919. Only on the vertieal granite roek, not on the boulders strewn below.—H. S. Thompson.

Athyrium Filix-foemina Roth, var. *molle* Newm. The Watchetts, Wells, N. Som., v.c. 6, Aug. 4, 1918.—Ida M. Roper. There are two fronds on my sheet. One agrees pretty closely with Newman's figure ("Brit. Ferns" (1844), p. 244) of Roth's *molle*. The other frond has the pinnules mueh more deeply eut and makes some approaeh towards Roth's *trifidum*, but the midrib is distinctly winged throughout its length and conneets the pinnules, so I presume it is also *molle*. Moore ("Brit. Ferns"

(1859), p. 126) states that "the form called *molle* . . . . is perhaps only one of the smaller states of the common plant." Perhaps Miss Roper could kindly test this by cultivation.—C.E.S.

Polystichum aculeatum Roth, var. *lobatum* Presl. Ebbor Rocks, Wookey, nr. Wells, N. Somerset, v.c. 6, Aug. 19, 1918.—Ida M. Roper. Yes; it is seemingly more frequent than type in most counties. Moore believes this to be a permanent variety, although a very variable one, and that it cannot be developed into *aculeatum* by culture.—C.E.S.

Aspidium spinulosum Sw. On the peat moor, Catcot Burtle, N. Somerset, v.c. 6, Aug. 28, 1888.—J. W. White. I should doubt this.—G. C. Druce. *Lastrea spinosa* of Newman (which he says = *L. spinulosa* Bab.), of which I have an authentic sheet, appears to possess a more elongate, linear frond, the scales are blunter, the involucres more entire and the fructification more confined to the upper part of the frond. Is not Mr. White's plant a form of *L. dilatata* Newm. (= *multiflora* Newm.) having fronds more triangular in shape and its scales not so dark-centred as usual? In well-grown *dilatata* of ideal situations the fronds seem ovate or oblong-lanceolate. Newman states that the *A. spinulosum* of Swartz, Willdenow & Fries equals his *L. dilatata*!—C.E.S.

Lastrea spinulosa Presl. Fen Moor, Goathland, N.E. Yorks, v.c. 62, Aug. 6, 1913.—J. E. Little. Quite a new form to me and is a striking plant. I could not get beyond *Dryopteris spinulosa*, in some ways approaching *uliginosa*.—G.C.D. Certainly; aspect like *uliginosa*, especially the upward curve of the fronds, but the cutting of the apex will not do. I have seen a similar plant from E. Norfolk and put a ? to it.—A.B.

L. spinulosa Presl, var. *elevata* Braun. Shapwick, N. Somerset, v.c. 6, Aug. 8, 1918.—Ida M. Roper. I have not been able to consult Braun's original description, but Ascherson & Graebner, and also Rouy, give one the idea that *elevata* has decidedly *crowded pinnules*. Perhaps this Shapwick plant, if not type, might come under *exaltata* Lasch, which A. & G. describe as being a large plant with rather remote pinnules.—C.E.S.

Polypodium vulgare L., var. *serratum* Willd. (Ref. No. 4464.) West Monkton, S. Somerset, v.c. 5, Sept. 13, 1918; found by Miss Roper and myself.—E. S. Marshall. My example exactly agrees with the figure of *serratum* in Moore's "Brit. Ferns," t. 2, f. B (1855).—C.E.S.

Chara aculeolata Kuetzing (= *C. polyacantha* Braun). Marham Fen, W. Norfolk, v.c. 28, July 17, 1919 (*teste* J. Groves). A few pieces of *Utricularia minor* were found by me, after I got home, mixed up with a plant of *U. vulgaris* from the same piece of swamp.—J. E. Little.

Nitella mucronata Miquel, var. *gracillima*. (*See* "Journ. Bot.", 1917, p. 323). Pond, old strontia-pit, E. of Rangeworthy, W. Glos., v.c. 34, March 22, 1918.—J. W. White.

SUBSCRIPTIONS, 1918—1919.

	s.	*d.*
Babington, Mrs. C. C. ...	12	0
Bailey, C	12	0
Barclay, W.....	12	0
Barton, W. C.....	12	0
Bickham, S. H.	12	0
Bishop, E. B.	12	0
Bostock, E. D.....	6	0
Boyden, Rev. H.....	12	0
Burdon, Rev. R. J.....	12	0
Carr, Prof. J. W.	18	0
Comber, J.	12	0
Cotton, Mrs.	12	0
Crosfield, A. J.	12	0
Day, Miss L.	12	0
Druce, F.....	12	0
Ewing, Mrs	12	0
Fox, Rev. H. E.....	12	0
Fraser, J.....	12	0
Geldart, Miss A. M.	12	0
Goode, G.....	12	0
Gregor, Rev. A. G.....	12	0
Gregory, Mrs. E. S.	6	0
Griffith, J. E.	12	0
Hall, L. B.	12	0
Hamson, J.	6	0
Hayward, Miss I. M.....	12	0
Higgins, Miss D. M.	12	0
Hudson, Rev. J. C.	12	0
Hunnybun, E. W.	6	0
Letchworth Nat. Soc.....	8	0
Linton, Rev. E. F.....	18	0
Little, J. E.....	12	0
Littlebury, H. C.	12	0
Long, Dr. F.	12	0
Luddington, J. L	12	0
Marshall, Rev. E. S.	12	0
Peck, Miss C. L.....	12	0
Reynolds, B.	6	0
Roper, Miss I. M.	12	0
Routh, T. E.	12	0
Salmon, C. E.	12	0
Sherrin, W. R.	18	0
Somerville, Mrs. A.	12	0
Sparling, Miss F.	12	0
Thompson, H. S.	12	0
Waddell, Rev. C. H.	12	0
White, J. W.	12	0
Wilmott, A. J.....	6	0
Wilson, E. A.	12	0
Wolley-Dod, Lt.-Col. A. H.	12	0
	£28	18 0

8 OCT. 1920

TREASURER'S BALANCE SHEET, 1918 and 1919.

Receipts.

	£	s.	d.
Subscriptions for 1918 and 1919	28	18	0
Sale of Reports	1	15	3
	£30	13	3

Expenditure.

				£	s.	d.
Balance due to Treasurer, Dec. 31st, 1919				1	18	0
Printing—						
Thirty-fourth Annual Report (150 copies) 40 pages and wrapper	15	10	0			
Desiderata List		16	0			
				16	6	0
Tilley & Co., printing circulars					10	6
Working Expenses: Distributors				5	6	5
Balance in hand, Dec. 31st, 1919				6	12	4
				£30	13	3

SPENCER H. BICKHAM,
Hon. Treasurer.

31*st December*, 1919.

WATSON BOTANICAL EXCHANGE CLUB

It is necessary to draw the attention of members to the serious financial position that has arisen, owing to the immense increase in the cost of printing and the higher rates of postage, and for them to decide without delay whether they are willing to pay the increased subscription that is necessary to enable the Club's work to be carried on free from debt. In 1914 the cost per page of printing the Report was 4*s.* 11*d.*, in future it will be not less than 12*s.* 0*d.*, if the present high prices continue—and there is little probability of any appreciable decrease for at least a number of years. When we add to this the cost of distribution of plants, of an occasional Desiderata List or frontispiece, and the out-of-pocket expenses of the Secretary and Treasurer in postage, it is found that with a membership of fifty the subscription has to be raised to 14*s.* in order that the Club should be able to pay its way. The cost of this year's Report will be met by the subscriptions and by donations very kindly sent by several members. If those who have not yet paid their subscriptions would send them **at once** to the Treasurer (S. H. Bickham, Esq., Underdown, Ledbury) or to the Secretary, we should be very grateful.

After so many years of interesting and useful work it is much to be hoped that the Club will not now be suspended for lack of sufficient support, and we cannot believe that members will allow it to be; but in order to preserve it there must be an immediate and unanimous expression of willingness to pay the higher subscription, and an effort on the part of all to increase the number of members. Whichever way members decide, will they **all** please inform the Secretary, *not later than Oct.* 31, in order that we may know how we stand, and arrangements, if necessary, be made for the next distribution.

G. GOODE,
Hon. Sec.

LYNDHURST,
DE FREVILLE AVENUE,
CAMBRIDGE,
Oct. 23, 1920.

WATSON BOTANICAL EXCHANGE CLUB—URGENT.

A. J. Wilmott Esq. F.L.S.
British Museum (Natural History)
Cromwell Road
London. S.W.7

WATSON BOTANICAL EXCHANGE CLUB

The response to the circular of October 23 was very gratifying, in that it displayed on the part of the most active workers a keen desire that the Club should not be allowed to lapse, the resignations consisting almost entirely of members who no longer contribute plants. It has therefore been decided that the Club shall be continued, and members are asked to send their parcels of plants by **December 31** to **W. H. Pearsall, Esq., Dalton-in-Furness, Lancs.**, who has very kindly promised to distribute. The work of distribution, and the compilation of the Report, will be greatly facilitated if members will be careful to keep to the few simple rules given in the Desiderata List, and will remember to send with each gathering of plants a spare copy of the label.

If the Club is to continue its work satisfactorily it is very essential that there should be a considerable increase in the number of members, and we cannot too strongly urge **all** either to endeavour themselves to enlist recruits, or to send to the Secretary the names and addresses of those they suggest should be invited to join. Additional members who are likely to contribute specimens are particularly wanted, but non-contributing members are also heartily welcomed for the assistance they give to the funds by their subscriptions.

After thirteen years' good service to the Club as Treasurer, for which we are most grateful, Mr. S. H. Bickham now wishes to retire, and the present Secretary will, for the time being, take his place. If members

would, without being applied to, kindly send their subscriptions (14/-) **early** in the year it would save the labour and expense of applying to them, and would be to the great advantage of the Club.

Mr. H. Stuart Thompson, F.L.S., who was the Club's Secretary from 1900—1905, has very kindly promised to act again in the same capacity from the commencement of the new year. Perhaps I may be allowed here to express my sincere gratitude to members for their kindness and assistance to me since I undertook the Secretarial duties.

G. GOODE,

Hon. Sec.

LYNDHURST,
DE FREVILLE AVENUE,
CAMBRIDGE,
26 *November*, 1920.

LIST OF MEMBERS

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W. C. Barton, B.A., F.L.S., 43 Rosary Gardens, London, S.W. 7
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Lt.-Col. A. H. Wolley-Dod, Glenrinnes, Tadworth, Surrey.

WATSON BOTANICAL EXCHANGE CLUB—URGENT.

Vol. III., No. 4.

THE

THIRTY-SEVENTH ANNUAL REPORT

OF THE

WATSON

Botanical Exchange Club

1920—21.

Referees:

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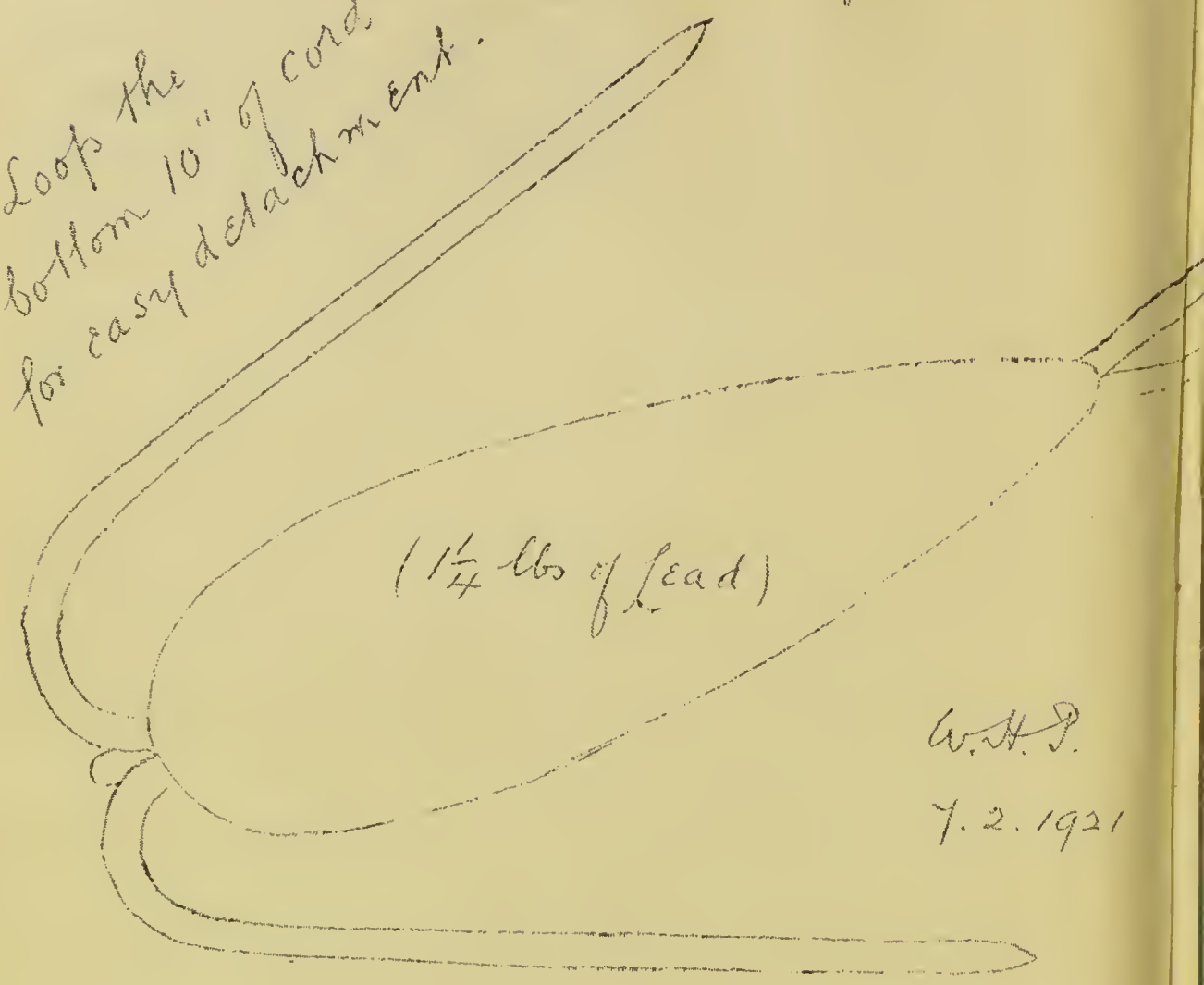
Taken from Aft. Wolley-Dod's copy of this report, in which it was found in this place (inserted before the beginning of the Report)
a.g.w.s. Aug. 1940.

Rough outline sketch of dredger.



Greatest length (over all) 5½"
Three hooks of malleable iron wire (1/16" in diam.) - galvanised for protection from rust. One length of wire is bent to form 2 hooks and the loop at the top. The other hook is brazed to the two. All the shanks are hidden by the torpedo-shaped lead. All bends should be very carefully round

Linear leaved Potamogeton grow on the softest & finest muds at depths up to 20 ft. They are usually quite invisible from the surface & must be brought up by dredging. Most dredgers either go right through the plants & fail to detach any, or break off branches of plants only. The essential feature in a dredger is weight - above the 3 hooks. This should be tapered at each end, to avoid damage to plants brought up. When the dredger is thrown out, its weight causes 2 of the hooks to sink slightly into the soft mud - and also to keep the horizontal position when drawn along the bottom. It will thus bring up entire plants, if allowed sufficient 'drag'. Use strong window cord - slightly thicker than the wire - for attachment.

THE WATSON

Botanical Exchange Club.

REPORT FOR 1920—21.

Although we much regret that in November 1920 several members did not see their way to contribute the necessarily increased subscription, and that one or two resigned on account of increasing years, we welcome some new members. One of these, Mr. W. H. Pearsall, Sen., most kindly agreed to act as Distributor, and the Club is indebted to him for his valued help at an awkward time.

Mr. Spencer H. Bickham, who had been our esteemed Treasurer for thirteen years, desired to be relieved of his duties, and Mr. Goode kindly consented to take his place for the time being. Last year's deficit was generously met by donations from eight members.

Mr. Goode felt that pressure of other work necessitated his resignation of the Secretaryship, and it fell to my lot to again fill the gap. It is impossible to adequately express the indebtedness of past and present members to Mr. George Goode for the care and efficiency with which he piloted the Club since early in 1905. No point that came within his observation as Hon. Secretary and Editor of the Report was too small to have his close attention.

Since the publication of the last Report we have lost one of our earliest members in Miss D. M. Higgins, of Luton, who died in 1920. Miss Higgins joined the Club in 1886, and for many years was a regular contributor.

Mr. Pearsall writes that as last winter's "distribution was so small, it would be difficult to say much about it; and with printing-costs so high, it seems undesirable to do so." But he

has been so good as to contribute, at Mr. Little's suggestion, some very useful hints on collecting and mounting linear-leaved aquatics, and also a further account with outline sketch of his special 'dredger.'

The Club is grateful to the various botanists whose names appear in the Report under their several notes for examining and commenting upon specimens submitted to them. A few determinations are unavoidably deferred until later. We particularly thank Messrs. Salmon, Bennett and Pearsall.

Several members omit to state which vice-county their plants come from when a county is divided into two or more vice-counties. In some such cases it is difficult to locate the place in order to find whether a plant is unrecorded from a vice-county in "Top. Bot." Ed. 2 or *Suppl.* in "Journ. Bot." 1905. Although we publish no Desiderata List at present, quite common plants are not wanted unless differing markedly from type, or new to a vice-county.

The contributors for the year were :—

	Sheets.		Sheets.
Mr. W. C. Barton	... 234	Mr. C. E. Salmon	... 29
Rev. R. J. Burdon	... 79	S. London Bot. Inst.	... 106
Miss L. Day ...	... 27	Mr. H. S. Thompson	... 437
Mr. L. B. Hall ...	... 35	Mr. J. W. White	... 153
Mr. J. E. Little	... 84		
Mr. W. H. Pearsall	... 22	Total ...	...1317
Miss I. M. Roper	... 111		

Because of the cost of printing, and because few of the large number of plants sent by myself (partly intended for non-contributing members) were from new localities, and as some were merely ecological states and seedlings, there is no object in loading the Report with mere copies of labels.

Our member, Col. A. H. Wolley-Dod, has the good wishes of the Club during his long sojourn in California.

Certain back numbers of Reports may be bought from the Treasurer.

H. STUART THOMPSON,

Hon Sec.

CLIFTON,
May 1921.

HINTS ON COLLECTING AND MOUNTING LINEAR-LEAVED AQUATICS.

It has been suggested to me that members would appreciate a few directions as to methods of preparing delicate aquatics for the herbarium; and in the hope that many who have hitherto been diffident in collecting these beautiful and interesting plants may be induced to attempt their collection, I willingly accede to the request.

Dredging. The most interesting of these species are usually invisible from the surface, and grow only on the finest and softest muds at depths up to twenty feet. Hence the necessity for a dredger. (A rough sketch and description of the most effective form is enclosed herewith.) The dredger is thrown out and the boat rowed on a few strokes to obtain sufficient 'drag' before hauling in. This is done slowly and uniformly so that the hooks hold the bottom and uproot entire plants. The best results are obtained by dredging from the deeper water to the shore—i.e. *up* the slope—rather than in the contrary direction.

When botanising on land it is always advisable to carry a long piece of string in the pocket. A large stone attached to the end of this will provide means whereby species growing out of reach in water may be readily secured.

Floating-Out. After removal from the water the plants *must be kept wet* until you reach home. My own collection is usually done from a boat, and the plants are put at once into my vasculum with water at the bottom and kept shaded as far as possible during the rest of the day. Linear-leaved aquatics placed in a dry vasculum and left exposed to direct sunlight will be irretrievably ruined in a short time. In the absence of a vasculum the plants should be placed under the stern seat in the water usually found there, and upon landing rolled in damp dock-leaves or moss. At home the plants are put at once into a plentiful supply of water and may there be left until next day. If, however, they are to be sent to a referee they must be posted same day in a tin quite full of damp moss and aquatics.

For mounting I use zinc trays (18″ × 11″ × 3″), but any large vessel full of water will suffice. Place the sheet of white mounting paper under the surface and see that it is entirely submerged—select one complete plant and place it upon the paper, both being submerged. With a pair of fine-pointed steel forceps coax the leaves and branches to assume a natural position—with leaves

and fruits well displayed. (The forceps are useful in detaching caddis-cases, dirt or other foreign matter.) Then with the right hand take hold of the bottom of the paper and gradually raise it out of the water, when the root will adhere to the paper. Now take hold of the top of the paper with the left hand and very slowly raise the whole sheet—as a slightly inclined plane—out of the water, which will thus run off at the top and leave the whole plant adhering to the paper. Care is required, as the water finally escapes, to prevent the linear leaves from running together and spoiling the effect, but a little practice and patience will soon overcome this difficulty.

Drying. Dry paper and plant together in the press. The best results are obtained by putting blotting-paper directly over each plant, whatever other paper is used in addition. Change the paper after two or three days. Great care is required in changing—the blotting-paper should be lifted slowly from the root to the apex of the plant, and not in the opposite direction. When the whole plant is exposed, straighten out any folded leaves, re-cover with dry paper, and change again in a week. After that the plants may be left for a much longer period. When the plants and their paper-mounts are stone-dry (test with the back of the hand) they should be enclosed in folded covers of thin paper, and thus protected they keep indefinitely and can be readily examined. On no account should gum or other adhesive be used for mounting—water and adequate pressure are amply sufficient.

W. H. PEARSALL.

ADDITIONAL NOTES TO FORMER REPORTS.

Report (1918—20), p. 92.

Ranunculus Lingua L. Examination of the sheets in the Camb. Univ. Hbm. shows that all are more or less clothed on ls., upper stems and peds. with appressed hairs. All the sheets in the Hbm. E. S. Marshall (recently added) show the same character. The glabrous form is not represented at all.—J.E.L.

Report (1918—20), p. 99.

Mr. Riddelsdell wrote to Mr. Barton: "Your *Rubus* Ref. No. 435 is *villicaulis*, NOT *calvatus*. The same form is in Rogers' herb. with the name corrected from *calvatus*."

Report (1918—20), p. 114-115.

"*Ulmus stricta* Lindley ?" and "*U. glabra* Mill. var *cornubiensis* Loud." These trees were seen by Dr. Druce in 1916, and in *Rep. B.E.C.* 1916, 502, he records them as *U. Wheatleyi*, the Jersey Elm (*U. stricta* var. *sarniensis Moss*, "Camb. Brit. Fl.").—J.E.L.

31st Report (1914—15), p. 488.

Spergularia rupestris var. *glabrescens*. Seaford, E. Sussex.—R. S. Standen. This is surely no form of *S. rupestris*, but is, I believe, the *S. neglecta α genuina* of Syme. The seeds are pyriform and papillose, and this, I presume, led to the name *rupestris* being given: that plant, however, has an entirely different habit, bracts, flowers, etc. So far *S. rupestris* has not been traced further eastward in Britain than Hampshire and the Isle of Wight.—C.E.S. I quite agree with Mr. Salmon.—H.S.T.

30th Report (1913—14), p. 461.

Potamogeton pusillus L. Southill Park, Beds.—J. E. Little. Mr. Pearsall says (in the present Report) this is *P. panormitanus*, Biv. Bernardi.

Anemone apennina L. Near Dartmouth, S. Devon, v.c. 3, March 5th, 1915. Legit Miss S. Imeson.—S.L.B. Inst. It would be interesting to know its status, and whether more or less naturalized, as in some other counties. A native of southern Europe and eastwards to Persia, it appears only naturalized in western and central Europe. The blue anemones of Cornwall come under *A. nemorosa* var. *caerulea* D.C.—H.S.T.

Fumaria officinalis L. var. Field of vetches, Churchill, N. Somerset, v.c. 6, April 7, 1920.—Ida M. Roper. Probably an abnormal form of the type, due to the very early date when gathered. The sepals are too large for either var. *Wirtgenii* or *minor*.—H. W. Pugsley.

Barbarea vulgaris Ait. Gravel pit, Portfield, Chichester. W. Sussex, May 22, 1920.—R. J. Burdon. Correct.—A.B.J.

Viola sylvestris Kit. f. *pallida* Neum. Spinney, Sheepscombe, E. Glos. v.c. 33, April 14, 1920.—Ida M. Roper. Correctly named.—E. S. Gregory.

V. Riviniana Reichb. f. *nemorosa* Neum. Ball Wood, Congresbury, N. Somerset, v.c. 6, May 1, 1920.—Ida M. Roper. Habit, colour of spur and insignificant calycine appendages, are of typical var. *nemorosa*.—E. S. Gregory.

V. ericetorum Schrad. f. *candida* Aresk ? Sheep-pasture nr. Kingsdown Crags, Mendip, N Somerset, v.c. 6, May 22, 1920. Flrs. pure white, petals broad. Some hundreds, growing with the type.—H. S. Thompson. This is not my idea of *V. ericetorum* f. *candida* Aresk. A similar plant, but with pale blue flowers, was sent to me in the spring of 1920 from another spur of the Mendips, which, after careful examination, I assumed to be a seedling plant of *V. canina* var. *pusilla*. The stipules and sepals proclaim its affinity with *V. canina*. A later gathering—say in June or July—would clear up the identity of this interesting little plant.—E. S. Gregory.

Silene conica L. In abundance on the sandy hillocks at Pembey, Carmarthenshire, July, 1920.—Leg. David Hamer. Comm. A. Bennett. Growing near to *Liparis Loeselii*, as it does in the E. Friesian islands on the European coast. An interesting addition to the Welsh Flora and to the Western Flora of Great Britain.

Silene Otites Wibel. Near Higham, Suffolk, 1912.—Louisa Day.

Cerastium tetrandrum Curt. ? Slopes of Durdham Down, nr. Clifton. v.c. 34, April 1920. Growing with *C. pumilum*. Bracts all herbaceous, pedicels more curved than usual.—H. S. Thompson. Yes, *C. tetrandrum*, with unusually curved pedicels.—W. H. Pearsall Mr. Pugsley writes, "I think the two plants sent me under this name are rather large examples of *C. pumilum*, differing only in size from other material sent under that name. I notice in "Camb. Brit. Flora" that the flowers of *C. pumilum* are stated to be smaller than those of *C. semidecandrum* and only about half as large as those of *C. tetrandrum*. I should have thought that *C. pumilum* produced the largest flowers of the three." *C. pumilum* is a most perplexing plant, and it is noticeable that the flowers in Coste, "Flore de la France" (in which country that species is widely spread), are larger than those of *semidecandrum*. *C. tetrandrum* is usually regarded on the Continent as a variety of *pumilum*.—H.S.T.

C. pumilum Curtis. Slopes of Durdham Down, Clifton, v.c. 34, April 10 and May 30, 1920.—H. S. Thompson. Correct;

but the narrow scarious margins of the upper bracts are difficult (or even impossible in some cases) to make out.—W. H. Pearsall. After the drought of March and April, 1921, on April 30th this plant is so small and dried up as to be hardly visible.—H.S.T.

C. vulgatum L. var. *holosteoides* Wahlenb. (*C. holosteoides* Frics.) Damp rock below Leigh Woods, N. Somerset, v.c. 6, May 29, 1920. A line of hairs on stem changes its position at each node.—H. S. Thompson. Flrs. too small for the var., under type preferable.—W. H. Pearsall. I have not seen Fries' description of this little-known plant; but although the flowers may be rather small, these specimens have the peculiar line of hairs on the stem, and the ciliate bracts mentioned by Druce in "Camb. Brit. Flora," and by Babington and Grenier and Godron. Also the "few scattered long hairs" on the leaves mentioned by White in his "Flora of Bristol." They agree with specimens (in my herbarium) so named and collected by J. Storey on the banks of the Tyne near Newcastle, 1848.—H.S.T.

Stellaria neglecta Weihe var. *umbrosa* (Opiz.). Hedge-bank of road between Whitchurch and Woollard Hill, N. Somerset, v.c. 6, June 13, 1920. Calyx and pedicels glabrous. It grew three or four feet high.—H. S. Thompson. Yes; the rarer plant with glabrous pedicels and calyx (which is often minutely tubercled, as in the example before me), which Marshall came to the conclusion should be called *umbrosa*.—C. E. Salmon.

Sagina subulata Presl. Damp places in combes on Quantock, above Holford, Somerset, v.c. 5, July 30, 1920. One specimen may be × *procumbens*.—H. S. Thompson. If this specimen is indeed the hybrid suggested, it is *far* nearer *subulata* than *procumbens*. It has the long pedicels, the glandulosity, the pentamerous flowers with longer petals, the longer capsules, etc., of the former. The seeds, too, seem perfectly healthy and well formed. Rouy ("Fl. Fr." III. 286) mentions a doubtful plant "*S. micrantha* Borcau ap. Em. Martin Cat. pl. Romorantin, ed. i (1875), ed. ii, p. 64; ? *S. procumbens* × *subulata*." This is described by Rouy as having, *inter alia*, small tetramerous flowers and abortive capsules—thus not Mr. Thompson's plant, which is difficult to separate from *S. subulata*.—C.E.S.

Hypericum elodes Linn. f. [372.] Skaigh aqueduct, Belstone, N. Devon, v.c., Sept. 6, 1920. A state induced by running water, in which the long shoots were floating.—W. C. Barton.

Malva sylvestris L. var. On waste ground by corn-mill, Portishead Dock, N Somerset, 30 July, 1906. Differs widely from the type in its luxuriant and perfectly erect habit—reaching a height of seven feet or more—and also in the shape of its leaves. Carpels did not become reticulate-rugose until they were brown, dry and ready to fall. Mr. E. G. Baker told me that there is a similar plant in Herb. Brit. Mus. gathered nr. Berne by R. J. Shuttleworth. Mill was subsequently destroyed by fire and plant did not reappear.—J. W. White.

Erodium circutarium L'Hérit. Very small-leaved prostrate form. Sandhills, Merthyr Mawr warren, nr. mouth of R. Ogwen, Glam., v.c. 31, Aug. 29, 1920—H. S. Thompson. It is a pity the collector made no note of the colour of floral parts and other details (as suggested in "Journ. Bot." 1920, 126) before drying this example. As far as we can gather from the single specimen submitted, this comes under *E. glutinosum* Dum. (less glandular than usual), having the ± bipinnatifid leaves, short, few-flowered peduncles, sub-dentate filament, and small carpel-pit without the furrow, etc., of that species. We should like, however, to see better material before *definitely* committing ourselves to this name.—E G.B. and C.E.S.

Medicago falcata L. On shingly beach, Kingsdown, Kent, 1913.—Louisa Day. Only two sheets showed mature fruits, and these were the semi-circular or sub-annular pods of *M. sylvestris* Fries.—W. H. Pearsall.

Trifolium hybridum L. var. *phyllanthum* Seringe. Waste ground, Avonmouth Dock, W. Glos., v.c. 34, Aug. 11, 1920. Inflor. changed to a head of trifoliate leaves.—Ida M. Roper.

Lathyrus hirsutus L. Waste ground, Webbington, Winscombe, N. Somerset, v.c. 6, June 21, 1920.—Ida M. Roper. An alien found throughout France, central and southern Europe, and extending to western Asia and N. Africa.—H.S.T.

L. maritimus Big. On shingle, Walmer, Kent, 1918.—Louisa Day.

Rubus ——— ? S.W. slope of Dancsborough, 900-1000 feet, Quantock Hills, v.c. 5, July 1920—Flowers small, light pink. Plant very glandular and of low stature, leaves small.—H. S. Thompson. I can only refer this to *glareosus* Rogers and Marshall, though with just the hesitation due to the great extension of distribution involved. It is known from N. Hants., Oxon and eastward, but not further west. Marked differences

here from the typical plant are the deep red (claret) colour of stem, leaflets strigose above with finely incised toothing, and the whole plant is very small. In essentials, however, I feel there is no room for doubt. N.C.R. for v.c. 5.—H. J. Riddelsdell.

R. argenteus Wh. and N. Durdham Down, Bristol, W. Glos., v.c. 34, Aug. 12, 1919 In these specimens the long, strongly ascending lower panicle-branches are well shown.—J. W. White.

R. leucostachys Sm. Open spots in Leigh Woods, N. Somerset, v.c. 6, Aug 6, 1920.—J.W.W.

R. fuscus Wh. and N. Open spots in Leigh Woods, N. Somerset, July and August, 1920. This is a bramble of many vicissitudes. There is little doubt that it was the *scaber* in "British Rubi" from the same locality, and to that species it bears some resemblance. Later, it stood as *Bloxamii*, and was subsequently put to *Babingtonii* by both Babington and Focke. But on being seen *in situ* by Dr. Focke when on a visit to this country he determined it to be *R. fuscus* Wh. and N. *See* "Notes on Somerset Rubi" in "Journ. Bot.," 1886; *Rep B.E.C.*, 1886; and "Notes on British Rubi," by Focke, in "Journ Bot.," 1890. The plant is so stable and abundant that one would like it to rest in peace!—Jas. W. White. Yes; fairly typical and normal, but considerably different from specimens (falling under *fuscus*) also from Leigh Woods, which I have received from Mr. Rogers' herbarium The species clearly exhibits great variety in this locality: *See* White, "Flora of Bristol," pp. 282 and 283.—H. J. Riddelsdell.

Sedum album L. (1) Limestone rocks, Cannington Park, Somerset, v.c. 5, July, 1920; (2) Oolitic wall below Dundry, N. Somerset, v.c. 6, Aug. 7, 1920.—H. S. Thompson. Murray and White were doubtless right in calling this native in a few places in Somerset. Why is the plant omitted from "Top. Bot." and *Suppl.*? It is strange neither Murray nor Marshall record it from Cannington, where it has every appearance of nativity, and where it has been known for many years. This plant is quite common in parts of Somerset, though usually as a denizen.—H.S.T.

S. rupestre L. Shingly beach, Walmer, Kent, 1914.—L. Day. I have seen no specimen. If native, new to Kent.—H.S.T.

Callitriche stagnalis Scop. f. [20]. In slowly running water, Grande Mare, Guernsey, Aug. 16, 1912.—W. C. Barton. . . . belongs to a large-leafed plant I know very well from many

localities which never fruits, and which I have always regarded as a sterile state of *C. stagnalis* growing in running water : that species being usually a mud-dweller.—J. Groves.

Oenothera rosea (Sol.) in Ait. Garden weed at Failand House, N. Somerset, August 1920. Dr. Rendle writes : "A native of Mexico, S. United States and S. America ; it occurs as an alien in the Canary Isles and S. Europe."—J. W. White.

Danaa cornubiensis Burnat. Burnham Beeches, Bucks, Aug. 28, 1920.—W. R. Sherrin and L. B. Hall. The plant was very abundant, but the continuance of the species here is threatened, as the wood is being cleared.

Carum verticillatum Koch. [469]. Boggy meadows, Colbren, W. Brecon, v.c. 42, Aug. 31, 1920 Recorded from the locality in "Journ. Bot.," 1885, p. 86.—W. C. Barton.

Galium Mollugo L. var. *Bakeri* Syme. Roadside between Birsay and Dunkadale, Mainland, Orkney, 4 Aug., 1920.—R. J. Burdon. Pending some note on this plant (I have seen no specimen), *see* last Report, p. 104, where C.E.S. says *Bakeri* is "better placed as a var. of *G. erectum.*"—H.S.T.

G. saxatile × *asperum* ? Growing with or near both parents on limestone ground north of Cheddar Gorge, N. Somerset, v.c. 6, June 24, 1920, alt. c. 700 ft. Turns black on drying, like *saxatile* ; leaves otherwise more like those of *asperum.* One species seemed to pass imperceptibly into the other, *saxatile* being on the grassy ground further from the slope of the Gorge. *See* interesting article by Tansley in "Journ. of Ecology," Dec. 1917, "On competition between *G. saxatile* L. and *G. sylvestre* Poll. on different types of soil."—H. S. Thompson. Is any *asperum* apparent ? The texture of the basal leaves is that of *saxatile*, the ovaries (there are no ripe fruits on my two examples) show evidence of the characteristic tubercling of the fruit of that species, and the upper leaves of *saxatile* are often as narrow and acute as in these specimens.—C. E. Salmon. Mr. Tansley prefers to withhold suggestive remarks upon this plant until after further culture and investigation at Cambridge.—H.S.T.

Cirsium tuberosum Allioni (*Cnicus tuberosus* Roth.). Rough pasture on coast, Nash Point, Glam., v.c. 31, Aug. 29, 1920.—H. S. Thompson.

C. arvense Scop. [475]. By R. Wye in shade, Boughrood, Radnor, v.c., 43, Aug. 30, 1920. Growing on flood deposit. All

vegetation at this spot was luxuriant, but there occurred also the usual form. Approaching var. *mite* Koch "foliis caulinis sinuatis, rameis integris vel dentatis mitius spinosis."—W. C. Barton.

Centaurea obscura Jord. [478]. Rocky banks of R. Wye, Bonghrood, Radnor, v.c. 43, Aug. 30, 1920.—W. C. Barton. All the specimens included in this gathering have the habit and large globose heads of *C. obscura* Jord., under which they must be placed. The phyllary-appendages recall those of *C. nemoralis* Jord., ranging in shape as they do from subulate, lanceolate-linear, at the base of the capitulum, with the upper series lanceolate and ovate-lanceolate, the uppermost only being roundish. The appendages of *C. obscura* Jord. should be broadly ovate, roundish or reniform. The plant is certainly not *C. nemoralis* Jord., which besides the character of the linear-lanceolate phyllary-appendages, is distinguished by its smaller ovoid heads borne on more numerous branches. The appendages of this R. Wye plant are black or blackish-brown, closely imbricated or spaced, and then allowing the green phyllaries to be seen. The lowest series of appendages may be spreading or recurved. I associate this plant with others known to me, to which I have given a MS. varietal name denoting the resemblance to *C. nemoralis* Jord. Dr. Druce has also gathered somewhat similar forms in Essex and Caithness.—C. E. Britton.

Hieracium rubicundum F. J. H. Walk Mill Bay, Orphir, Orkney, 3 Aug, 1920.—R. J. Burdon. Apparently so, with smaller heads than usual.—H.J.R. I think a small flowered form of this.—H. W. Pugsley.

H. scoticum F. J. Hanb. [502]. Rocks near Penwyllt, Upper Tawe Glen, Brecon v.c. 42, Aug. 21, 1920.—W. C. Barton. These plants are identical with those gathered by the late Rev. A. Ley at Penwyllt, July 1906, and named *H. scoticum* F.J.H. The Welsh form.—J. Cryer. Yes; looks *very much* like my Scotch *scoticum*.—H. J. Riddelsdell.

H. serratifrons Almg var. *lepistoides* Johanes. [505] *teste* J. Cryer. Railway banks, Aberedw, Radnor, v.c. 43, Aug 23, 1920.—W. C. Barton. *H. pellucidum* Laestad, top sheet; I doubt if the others are (all) that.—H.J.R.

H. mutabile Ley. (506). Railway banks, Aberedw, Radnor, v.c. 43, Aug. 23, 1920.—W. C. Barton. I agree, at least to most.—H.J.R.

H. scanicum Dahlst. [503]. Glen Haffi, Upper Tawe Glen, Brecon, v.c. 42, Aug. 21, 1920. Mr. Cryer passed the whole gathering as *H. scanicum*, and Mr. Riddelsdell agreed to the sheets he saw.—W. C. Barton. This is not the plant I understand to be *H. scanicum*. I think it to be *H. strumosum* Ley, which is very near *H. sciaphilum* and is shown as a variety of that species in Linton's "British Hieracia."—H. W. Pugsley.

H. sciaphilum Uechtr. var. *amplifolium* Ley. [366, 367, 368] *teste* Cryer. Between Stedham and Woolbeding, W. Sussex, v.c. 13, Sept. 10, 1918.—W. C. Barton. Top sheet and some others *amplifolium*, but by no means all.—H.J.R. E. S. Marshall saw the whole series, 366-368, in 1918, and said it was a plant unknown to him.—W.C.B.

H. protractum Lindeb. Ronas Voe, Mainland, Shetland, v.c. 112, July 28, 1920.—R. J. Burdon. Undoubtedly very near *protractum*, differing only in the numerous leaves and dark styles, I believe; but the species, according to Linton's Handbook, p. 75, is variable with us.—H.J.R. The single sheet sent, bearing thirteen leaves, does not seem to belong to any of the *Alpestris* group, but rather to the *Foliosa*. I think it is one of the slender forms connecting *H. crocatum* Fr. with *H. strictum* Fr.—H. W. Pugsley.

Legousia hybrida Delarbre. Oatfield above Woollard Hill, N. Somerset, v.c. 6, June 13, 1920. Many plants have one or both braets springing from half-way up the ovary. *See* "Fl. of Bristol," p. 413.—H. S. Thompson.

Pyrola rotundifolia L. var. or f. *chloranthiflora* Notoc in herb. f. *pumila* A. Blytt "Norges, Flora" (not of Horniman, which is *P. grandiflora* Nadius), "Hand. Norges Fl.", A. Blytt, 1906, 550. First in flower on June 2nd, 1920, Scorriclett, seven miles W. of Wick, Caithness, Mr. R. Bain. Flowers greenish-white with green veins. An additional species to the Caithness Flora.—A. Bennett.

Lithospermum purpureo-caeruleum L. Banks nr. Axbridge, N. Somerset, v.c. 6, May 17, 1920. A few in flower actually by March 20 this year.—H. S. Thompson.

Euphrasia Kerneri Wettst. (498). All from one patch on railway bank, Boughrood, Radnor, v.c. 43, Sept. 6, 1920.—W. C. Barton. Yes, *E. Kerneri*.—W. H. Pearsall. I think *E. Kerneri*.—H. W. Pugsley.

E. nemorosa H. Mart. var. *ciliata* Drabble. [481]. Penywilt, Brecon, 25 Aug., 1920. [486]. Marshy ground at foot of Craig Gleisiad, Brecon, v.c. 42, 26 Aug., 1920.—W. C. Barton. Both gatherings are correctly named, in my opinion.—W. H. Pearsall. *E. nemorosa* var. *ciliata*, Drabble.—H. W. Pugsley. Yes; both slightly ciliated and therefore var. *ciliata* (if Mr. Barton has satisfied himself that they are *nemorosa*—I think they are).—E. Drabble.

E. nemorosa H. Mart. ? Downs, Goodwood, Sussex, v.c. 13.—Coll. R. J. Burdon, 26 Aug,. 1920—Comm. J. E. Little. *E. nemorosa*, var. *ciliata*.—W. H. Pearsall. I think all should be put under *E. nemorosa*.—H. W. Pugsley.

Rhinanthus. Burra Firth, Unst, Shetland, v.c. 112, July 21, 1920.—R. J. Burdon. *R. stenophyllus*, I believe.—C. E. Salmon.

Mentha rubra Sm. [479]. Shingle by R. Wye below Erwood, Radnor, v.c. 43, Sept. 6, 1920.—W. C. Barton. A small starved state of *Mentha rubra* Sm., which has been growing in a dry situation and is abnormally hairy. I had under observation a fine colony about 18–24 inches high; in the droughty season of 1919 the stems were only 2–4 inches high. I cultivated it during 1920, and it grew 30 inches high.—J. Fraser. I think not *rubra*; the flowers are too small. It comes, I think, under *M. gentilis* L., and is near *M. resinosa* Opiz. Deseglesi, in "Menthae Opiziana," 1881, says that Opiz's plant is *M. gentilis* Tausch = *M. rubra* Henning, and remarks: "Differt a *M. gentilis* L., folia supra glabris ut utrinque pilis subhirsutus."—A. Bennett. Yes, I believe *rubra*. I suppose the situation accounts for the stunted growth.—C. E. Salmon.

Thymus Serpyllum L., subvar. *angustifolius* (G. & G.). [471]. Rocks near Penywilt railway station, West Brecon, v.c. 42, Aug. 21, 1920. Mr. Jackson agrees.—W. C. Barton.

T. Serpyllum L., subvar. *linneanus* (G. & G.). [472]. Craig Gleisiad, Brecon, v.c. 42, Aug. 25, 1920. Mr. A. B. Jackson assents to the name.—W. C. Barton.

T. Serpyllum L. [473]. Hanging over rocks of watercourse down face of precipice at 1700 feet, Craig Gleisiad, Brecon, v.c. 42, Aug. 25, 1920. A state due to desiccation, with modification of leaves and reduction of internodes on lateral branches.—W. C. Barton. Yes, forms like this with the leaves much reduced in size are not uncommon in dry places.—A.B.J.

T. Serpyllum L. var. *linneanus* G. & G. (1) Ref. No. 4262. Grassy lane by Failand Golf Links, N. Somerset, v.c. 6, July 3, 1920.—H.S.T. (2) Ref. No. 4264. Lane above Holford, Quantock Hills, Somerset, v.c. 5, July 29, 1920.—H. S. Thompson. (1) Not unusually hairy. (2) Somewhat intermediate between vars. *linneanus* and *angustifolius*.—A B.J.

Ajuga reptans L. Wymondley Road, Hitchin, v.c. 20,May 16, 1920.—J. E. Little. These plants are not glabrous (cf. Bentham). The flower-stem has not "lines of hairs bifarious on the stem" (cf. Hooker), but an even covering of long, soft hairs. The leaves are slightly pubescent above and more thinly so below. The stolons are more thinly covered with hairs. The calyx is externally rather coarsely hirsute.—J.E.L. W. J. Hooker (1835), and Hooker and Arnott (1850) give glabrous or downy.—W. H. Pearsall.

Plantago lanceolata L. var. *depressa*. Rostrup. Sandness, Mainland, Shetland, v.c. 112, July 17, 1920.—R. J. Burdon. No report from Mr. Baker. Are not these large specimens (with broad leaves) of var. *sphaerostachya*, M. & K. ?—H.S.T.

P. maritima L. var ? Balta Sound, Unst, Shetland, on Serpentine, July, 24, 1920.—R. J. Burdon. Is this interesting plant the "small very hairy form from Shetland" which Syme called var. *hirsuta* ? I hope Mr. Baker will see specimens if he has not already. Is *hirsuta* different from var. *lanata*, Edmst. from N. Scotland ?—H.S.T. Without seeing my query (already in type) Mr. Baker writes: "Var. *hirsuta* Syme; but I hardly think var. *hirsuta* is distinct from var *minor* Hook, "Brit. Flora," 67 (1830). It is a most interesting and curious little plant, and is I expect what Edmonston ("Fl. of Shetland," ed. 2, p. 80) meant by his *P. hirsuta*."

Littorella lacustris L. Small pool at c. 700 feet on Quantock, above Holford, Somerset, v.c. 5, July 29, 1920. Rare in Somerset.—H. S. Thompson. This is the smaller sub-terrestrial flowering form; the submerged form is much larger and non-flowering.—W.H.P.

C. album L. var. *candicans* Lam. Roadside and cultivation on the peat of Shapwick Moor, N. Somerset, v.c. 6, August 1912.—J. W. White.

Polygonum mite Schrank. Near Thorpe, Surrey, Aug. 21, 1920.—L. B. Hall. Well-prepared specimens; achenes 3 mm. *P. mite* Schrank (= *P. laxiflorum* Weihe).—W. H. Pearsall. In

spite of distinct indications of glands upon the perianths here and there, I think this is rightly named. Its fruits are black and beautifully polished and shining: in *Hydropiper* they are browner, very slightly granular and not so highly polished or shining. I cannot understand "Camb. Brit. Fl." describing the leaves of *P. mite* as "subtruncate at the base"—this is not so in the examples in my herbarium, which have the base tapering into the petiole as in Mr. Hall's examples.—C. E. Salmon.

Rumex crispus × *obtusifolius*. Swampy ground, Hitchin, Herts., v.c. 20, July 18, 1920. Mr. A. J. Wilmott assents to the naming for a plant which he saw. The assumed parents were growing in quantity intermingled with the hybrid. The teeth upon the fruiting segments vary considerably in length.—J. E. Little.

Alnus rotundifolia Mill, var. *microcarpa* Rouy. Bank of rhine, Nailsea Moor, N. Somerset, v.c. 6, Mar. 30 & Sept. 24, 1920.—Ida M. Roper. Correct, I believe; it agrees with the description in the "Camb. Brit. Flora," and with other specimens so named in Herb. Mus. Brit., but the size of the fruits varies considerably even on the same inflorescence. The use of the name *rotundifolia* is invalid on account of the existence of an earlier trivial name *Betula glutinosa* L. "Syst. Veg." ed. 10, 1265 (1789). *See* "Camb. Brit. Flora," ii. 87 (1914).—A.B.J.

Salix triandra L. subsp. *Hoffmanniana* (Sm.). Alder swamp, nr. Blackhorse Lane, Hitchin, Herts., v.c. 20, April 10, 1920.—J. E. Little. Under type, I should say. Mr. Little's description of the mature leaves as "lanceolate, narrowed below" seems to exclude the subsp.—W. H. Pearsall. No adult leaves! One, even if withered, would have been decisive. There are no signs of the young leaves being at all ovate-lanceolate. I think it is *S. triandra* rather than *S. Hoffmanniana*.—E. F. Linton.

Salix Smithiana Willd. (= *S. caprea* × *viminalis*). Between Lickfold and Bexley Hill, W. Sussex, v.c. 13, Aug. 30, 1918. Named by Mr. A. B. Jackson.—W. C. Barton. Yes: *S. caprea-viminalis* Wimmer.—W. H. Pearsall.

S. aurita × *cinerea* (*S. lutescens* A. Kern). Crox Bottom, Bishopsworth, N. Somerset, v.c. 6, March 18, Sept. 16, 1920.—Ida M. Roper. So I should name this willow. A fairly intermediate sample.—E. F. Linton. Yes; ample indications of the less evident parent *aurita*.—W. H. Pearsall.

Populus alba L. ? Pistillate catkins, March 21, 1920. Leaves, October 7, 1920. Tree planted at Pembroke Road, Clifton,

Bristol.—H. S. Thompson. Yes; *P. alba* var. *nivea*, the common form. This species is not indigenous in Britain. The male tree seems to be extremely rare or imperfectly developed.—A.B.J.

P. serotina Hartig? ♀ catkins fallen from planted trees in Hanbury Road, Bristol, March 31, 1920.—H. S. Thompson. Not *P. serotina* Hartig, which is always a male tree. It is possibly *P. marilandica*, but foliage is necessary for a satisfactory determination.—A.B.J.

Allium carinatum L. Cult. from specimen on wall-top at Witley, Surrey (1872), August 1919. Croydon. Comm. A. Bennett.

Juncus maritimus Lam. var. *atlanticus* White. Saltmarsh, St. Mary's, Seilly, Sept. 1920. (*See* "Journ. Bot." 1914, 19.) Legit Mrs. Stideford.—J.W.W. A curious plant. Has it been compared with f. *depauperata* Loret, or *J. rigidus* Desp.? There is a var. *arabicus* Asch. et Buch. in Boiss. "Fl. Or." V. (1882), p. 354. A. Bennett.

Potamogeton panormitanus Bio. Bernardi in Nuove piante inedite del barone A. B. Bernardi, pub. dal fig. Andrea, 1838, 6—7. Hedge Court Mill Pond, Surrey, Oct. 9, 1920. Leg. Mrs. Wedgwood. Comm. A. Bennett. Dr. Hagström, in his "Critical Researches on *Potamogeton*," 1916, pp. 98—103, gives a full description of this plant, fully sustaining his contention that it is a good species, although heretofore called a syn. of *P. pusillus* by Italian botanists. One of the principal distinctions is afforded by the stipules (ligules of H.), which are connate, and another by the gemmae (turios of H.), which are much smaller and differently formed to those of *P. pusillus*. I hope next year to send a good series to the Club. These are merely to record its occurrence in our county.—A. Bennett. Dr. Hagström (p. 103) includes Surrey in his British distribution of this species, and on p. 126 he also gives Hedge Court Mill Pond, Surrey, for *P. franconicus* Fischer (= *P. pusillus* × *trichoides*). The first record of *P. panormitanus* as a British plant seems to be that of Dr. Druce from a ditch near the sea in Wolverton parish, W. Norfolk, July 1884, distributed through the B.E.C. Mr. Little's *P. pusillus* from the Lake, Southill Park, Beds., June 27 and July 12, 1913—through the W.B.E.C.—is *P. panormitanus*.—W. H. Pearsall.

Ruppia maritima L. (*R. spiralis* Hartm.). Rhine, Kingston Seymour, v.c. 6, Sept. 21, 1920.—Ida M. Roper. Yes, *R. spiralis*, but Hartman (who says this is *R. maritima* of the Linnean

Herbm.) refers it to Dumortier, "Fl. Belg. Prod." 1827. In some Floras it is given as of Gay, but his observations were long after Dumortier's.—A. Bennett.

Hydrilla verticillata Casp. Esthwaite Water, N. Lancs., v.c. 69*b*, August 1920. First discovered here in 1914, and now more abundant than formerly. Grows with *Naias flexilis*, *Pot. panormitanus*, *P. Sturrockii*, *Callitriche autumnalis*, etc., at a depth of six to eight feet, invisible from the surface, under a light-intensity of ·05 to ·03 of full daylight. Light does not entirely control its distribution however, for it is only found where the mud is inorganic, blue-grey in colour and clayey in texture, and containtaining less than 15 per cent. of organic matter. It propagates itself here solely by means of winter buds; no flowers have been seen, although carefully sought for for six years. The nearest place where it is known to occur is in Pomerania, 700 miles due east. It is conceivable that ducks, driven westward by the colder winters of that country, alighted on this private and secluded water with winter-buds adhering to their feathers or feet. This is supported by the fact that the extensive reed-swamps on the lake-margin still shelter great numbers of wild fowl of many species. The lake drains into Windermere, less than two miles distant; but so far we have not been able to find the plant there. This, however, is not surprising, for the conditions under which plants live in the two lakes are very dissimilar. Plants on the lake-floor in Esthwaite are invisible at four feet, but easily recognised in Windermere at twelve feet (and objects of light colour up to twenty feet), while the quantity of silt in the former is much greater than in the latter, and essentially different in character. (*See* "Journ. Ecol." Dec. 1917).—W. H. Pearsall. A beautiful series and most interesting notes.—H.S.T.

Carex Kattegatensis Fries. Wick river, Caithness, July 20, 1897. Leg. Miss Grant and Mr. J. Grant. Comm. A. Bennett. Part of a gathering from twenty-two distinct stations on the river. Made with a view to comparison with the *salina* section of Herr Almquist's collection of Scandinavian forms which he had kindly lent me, but I found it impossible to collate them or assign them to any exact form other than a range of variation of *C. Kattegatensis*. Its distribution in Europe is rather local. In Finland in Ostrobothnia borealis in three localities. In Norway near Christiansand; in Sweden in the provinces of Halland and Bohulsan; and in Scotland, Caithness, Wick and Beauly, Inverness.—A.B.

C. divisa Huds. On alluvium by River Avon, opposite Hotwells, N. Somerset, v.c. 6, June 16, 1920. Very rare in Somerset and throughout the south-west of England.—H. S. Thompson. It is rather strange that this Carex of warm countries (it is unknown in Scandinavia) should be so rare in the south-west of England; only two stations are given in Mr. Davey's "Fl. of Cornwall," and it is rare in Devon and Dorset.—A.B.

C. Pairaei F. Schultz. Near South-Western Railway station, Midhurst, W. Sussex, v.c. 13, June 25, 1920.—R. J. Burdon. *C. Pairaei* F. Schultz. *C. muricata* L., subsp. *microcarpa* Neum. I think Mr. Burdon's specimens are nearer *C. contigua* Hoppe; the fruit is longer than is general in *Pairaei*.—A. Bennett. Yes, undoubtedly *C. Pairaei*.—C. E. Salmon.

C. evoluta Hartm. (*C. lasiocarpa* × *riparia*). Peat moor, near Street, Somerset, v.c. 6, June 6, 1920. Discovered there in 1915.—H. S. Thompson. Up to 1879 Hartman still made this a species, though he quotes Wimmer's "Fl. Schl." ed. 3, 1857, as *C. riparia* × *filiformis*. In the 1916—17 Report I see Andersson is not quoted as he should be in "Cyperaceæ Scand." t. 8, f. 102, 20 (1849). He has it there as a species, with no mention of being a hybrid. It is well figured in "Fl. Dan. Supp." t. 30 (1853).—A. Bennett.

Agrostis tenuis Sibth., var. *aristata* Parn. Waste land by garden, Winchmore Hill, Middlesex, Aug. 8, 1920. *Fide* C.E.S.—L. B. Hall.

Koeleria britannica Domin, det. Dr. Stapf. Limestone rock by River Avon, below Hotwells, Bristol, v.c. 34, July 7, 1920.—H. S. Thompson. True, the leaves are rather long and the spikelets glabrous, but Domin admits a glabrous form.—O. Stapf *in litt.*

Poa polynoda Parn., var. *denticulata* Parn. ? Wymondley Rd.' Hitchin, Herts., v.c. 20, June 21, 1920. Fl.-gl. not webbed, denticulate on midrib.—J. E. Little. Seems to answer to Parnell's description, but a mere form, and *polynoda* is a var. of *P. compressa* L.—A. Bennett. This agrees with Parnell's description and figure of his *P. polynoda* (with the exception of the upper leaf-sheath character; this *should* be ± the same length as leaf). It has the 5-ribbed pale and non-webbed florets which Parnell relied upon to separate it from *P. compressa*, which is defined as having pales 3-ribbed and lower florets webbed. Parnell's variety *denticulata*, of which a careful drawing is given, has the pale minutely toothed *its whole length*, and, although the pales in Mr.

Little's examples show indications of teeth near the apex, I do not think the plants should be placed under this variety.—C.E.S.

Festuca ovina L. var. *capillata* Hackel. "Wymley," Wymondley Road, Hitchin, Herts., v.c. 20, June 27, 1920.—J. E. Little. Correctly named.—W. O. Howarth.

F. rubra L. Wymondley Road, Hitchin, Herts., v.c. 20, June 29, 1920.—J. E. Little. Whilst I do not consider it a typical specimen, I am inclined to place it under *Festuca eu-rubra*, var 1 (6) *genuina* subvar. *grandiflora* Hack. ("Mon. Fest. Europ." p. 139). *F. rubra megastachys* Gaud.—W. O. Howarth. Hackel also quotes the name *F. rubra diversifolia* β in Gaudin "Fl. Helv." i. 288.—H.S.T.

F. loliacea Curt. ? Purwell, Hitchin, Herts., v.c. 20, July 10, 1920.—J. E. Little. I think the author of this as a species was Hudson. Curtis called it a var. of *F. pratensis*, while Focke makes it a hybrid of *F. elatior* L. × *Lolium perenne*. Nyman and Hackel consider it to be *F. pratensis* × *Lolium perenne*. Though only a state, this seems near the var. *pseudololiacea* Hackel.—A. Bennett. *F. elatior* × *Lolium perenne* Hack. *F. loliacea* Curt. —W. O. Howarth. The very unequal glumes and the general habit of the plant suggests *F. pratensis* × *Lolium perenne*; the colouring is that of the former. Curtis ("Fl. Lond.") says (describing his *loliacea*) that the glumes are "for the most part two, though it often happens that the inner one is very small, imperfect and sometimes wanting altogether; but it happens very rarely indeed that the inner valve is wanting in all the spiculae of a spike from the same root." The example he *figures* has spikelets almost an inch long, and in other respects also does not portray Mr. Little's plant. The specimen figured in "E.B. 1821" (of *F. loliacea* Huds.) is, in habit, much more like the examples before me, but the glumes are drawn almost equal in length; this is not the case in the presumed hybrid, except at the very summit of the spike. Husnot ("Graminées," 1896—99, p. 65) distinguishes *F. pratensis* Huds. (under which is a var. *pseudo-loliacea* Coss. & Germ.) from *F. loliacea* Huds. by a number of characters. The latter, he says, seems to be a hybrid between *F. pratensis* and *Lolium perenne*. According to this author, Mr. Little's plant would come best under *F. loliacea* with its very unequal glumes, lower pale less acuminate than in *pratensis*, strongly five-veined glume, etc. It seems quite possible that Curtis, under the figure and description of his *loliacea* ("Fl. Lond." VI, 9) included both the *pseudo-loliacea* and the presumed hybrid.—C. E. Salmon.

Asplenium lanceolatum Huds. [467] Walls of bridge below Torpantan, Glyn Collwn, Brecon, Aug. 19, 1920. [468] Bridge over Upper Tawe at Glyntawe, W. Brecon, Aug. 26, 1920.—W. C. Barton. Not recorded for v.c. 42 in "Top. Bot." nor "Suppl." 1905.—H.S.T.

Ceterach officinarum Willd., f. *bifidum*. Wall, Chelvey Batch, Nailsea, N. Somerset, v.c. 6, Aug. 2, 1920.—Ida M. Roper. I find no authority for this *forma*, which is certainly rare, though T. Moore said (1863), "fronds with a divided apex, an uncertain development, are not unfrequent."—H.S.T.

Lastraea spinulosa Presl. Bog at Castleconnell, Co. Limerick, Aug. 1904. Leg. R. A. Phillips.—S. L. B. Inst. Not recorded for Co. Limerick in "Cyb. Hibern." ed. 2.—H.S.T.

L. aemula Brack. Hodder's Combe, Quantock Hills, Somerset, v.c. 5, very local, July 27, 1920. Note small sessile glands on upper surface. A plant peculiar to Great Britain and north-west France.—H. S. Thompson.

Polypodium vulgare L., f. *bifidum*. Goblin Combe, Yatton, N. Somerset, v.c. 6, March 13, 1920.—Ida M. Roper. f. *bifidum* Francis; divisions more obtuse than usual.—W.H.P.

Equisetum arvense L., var. *nemorosum* Braun. Barren stems from a roadside at Woodchester, Cotteswolds, v.c. 33, July 14, 1920. Of the varieties of *E. arvense* described by Milde in his "Monogr. Equisetorum" (1867), this form seemed to agree best with *nemorosum*, although certainly it is not so pale green in tint as to be "almost ivory-white." Warnstorf, however, "Naturw. Ver. Harz." vii. (1892), separates *nemorosum* into a number of sub-varieties; and among these the Woodchester plant may do well with *pseudo-silvaticum*.—Jas. W. White.

E. sylvaticum L., var. *capillare* (Hoffm.). Haslemere, Surrey, June 22, 1901. Leg. W. H. Griffin.—S. L. B. Inst.

SUBSCRIPTIONS, 1920.

	s.	d.
Bailey, C.	6	0
Barclay, W.	6	0
Barton, W. C.	6	0
Bickham, S. H.	6	0
Bishop, E. B.	6	0
Boyden, Rev. H.	6	0
Burdon, Rev. R. J.	6	0
Carr, Prof. J. W.	6	0
Comber, J.	6	0
Cotton, Mrs.	6	0
Crosfield, A. J.	6	0
Day, Miss L.	6	0
Druce, F.	6	0
Evans, A. H.	6	0
Ewing, Mrs.	6	0
Fraser, J.	6	0
Geldart, Miss A. M.	6	0
Goode, G.	6	0
Gregor, Rev. A. G.	6	0
Griffith, J. E.	6	0
Hadden, N. G.	6	0
Hall, L. B.	6	0
Hayward, Miss I. M.	6	0
Higgins, Miss D. M.	6	0
Horwood, A. R.	6	0
Hudson, Rev. J. C.	6	0
Lacaita, C. C.	6	0
Linton, Rev. E. F.	6	0
Little, J. E.	6	0
Littlebury, H. C.	6	0
Long, Dr. F.	6	0
Luddington, J. L.	6	0
Peck, Miss C. L.	6	0
Pugsley, H. W.	6	0
Roper, Miss I. M.	6	0
Routh, T. E.	6	0
Salmon, C. E.	6	0
Sherrin, W. R.	6	0
Somerville, Mrs. A.	6	0
Sparling, Miss F.	6	0
Thompson, H. S.	6	0
Waller, A. R.	6	0
White, J. W.	6	0
Wilson, E. A.	6	0
Wolley-Dod, Lt.-Col. A. H.	6	0
	£13	10 0

TREASURER'S BALANCE SHEET, 1920.

Receipts.

	£	s.	d.
Balance in hand, Dec. 31st, 1919	6	12	4
Subscriptions for 1920	13	10	0
Donations	8	10	0
	£28	12	4

Expenditure.

	£	s.	d.
Printing thirty-fifth and thirty-sixth Annual Reports (150 copies), 45 pages and wrapper	26	7	6
Balance in hand, Dec. 31st, 1920	2	4	10
	£28	12	4

31*st December*, 1920.

G. GOODE,
Hon. Treasurer.

LIST OF MEMBERS.

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Lt.-Col. A. H. Wolley-Dod, c/o Messrs. Cox & Co., 16, Charing Cross, S.W. 1

Vol. III., No. 5.

THE

THIRTY-EIGHTH ANNUAL REPORT

OF THE

WATSON

Botanical Exchange Club

1921—22.

Referees:

H. W. PUGSLEY, B.A., F.L.S., 81, Alexandra Road, Wimbledon, S.W. 19.

Rev. H. J. RIDDELSDELL, M.A., Bloxham, Banbury.

C. E. SALMON, F.L.S., Pilgrims' Way, Reigate.

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CAMBRIDGE:

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THE WATSON
Botanical Exchange Club

REPORT FOR 1921—22.

It is gratifying to notice that there has been an increase, not only in contributors, but also in the number of the plants sent in.

Mr. S. H. Bickham's gift of plants of the Sidebotham herbarium was especially acceptable, as I was thereby able to supply many specimens desired by members.

The preservation and packing was carefully done on the whole.

I venture to make the following plea on behalf of my successor, which, if attended to, will do much to lessen the tedious part of his work :—

All members should send a duplicate of each label, which should be put together by themselves in an envelope. (Will several members please note that this information for the Report should be written *at least* as carefully as the labels with the specimens.—*Hon. Sec.*)

The name and number in the Lon. Cat. ed. X., as well as the number of sheets, should be written on the cover of each wrapper.

The newspaper sheets and wrappers should in no case exceed the size of the cardboards which are used to pack the sheets for postage, and the name of the owner should be on each board.

The thanks of the Club are due to the following gentlemen who have acted as referees: Messrs. E. G. Baker, W. Barclay, A. Bennett, J. Fraser, A. B. Jackson, E. F. Linton, W. H. Pearsall, H. W. Pugsley, H. J. Riddlesdell, E. J. Salisbury, C. E. Salmon, H. S. Thompson, J. W. White, A. J. Wilmott, and Lt.-Col. A. H. Wolley-Dod.

List of Contributors.

	Sheets.		Sheets.
W. C. Barton ...	... 159	I. M. Roper ...	... 101
S. H. Bickham ...	... 153	C. E. Salmon ...	... 19
E. B. Bishop ...	... 44	H. S. Thompson ...	... 320
R. J. Burdon ...	... 116	J. W. White ...	... 119
L. B. Hall ...	... 42	Nat. Mus. of Wales	... 33
J. E. Little ...	... 324	S. Lon. Bot. Inst.	... 84
F. Long... ...	... 13		
W. H. Pearsall...	... 81	Total ...	...1628
H. W. Pugsley...	... 20		

W. R. SHERRIN,
Distributor for year 1920—21.

REPORT, VOL. III. No. 3, p. 100.

Mr. Barton's Nos. 414, 437, 441, sent as *Rubus sylvaticus*, are not that, but probably *R. Gelertii*, though very little glandular. His 426 was correctly named *sylvaticus*.—H.J.R.

17TH REPORT (1900—01).

Salicornia herbacea L. var. *pusilla* (Woods). (Ref. No. 2510). Hayling Island, 1900.—E. S. Marshall. On showing my specimens to the late C. Bucknall, he agreed that they were small *S. disarticulata*, Moss (1911), and I observed later that they are so quoted in "Camb. Brit. Flora."—H.S.T.

The Rules, formerly printed with the Desiderata List, are herewith reprinted, with slight alteration, for the use of new members especially.

We also print a useful Key to the British species of Juncus, as compiled by Mr. Sherrin, to whom our thanks are due for having managed the Exchange this year.

Although twelve new members (or Botanical Institutions) have become subscribers, we still need fresh members, particularly from Ireland and Scotland. Messrs. Arthur Bennett and E. F. Linton, who have done so much for the Club since its inception, have been made Honorary Members.

It was agreed by some of the older members that the time had come to somewhat alter the basis of membership by inviting several good Continental botanists to join the Club, so as to facilitate comparison of certain British plants with forms growing on the Continent of Europe. Moreover, British plants are very poorly represented in most of the large Continental Herbaria. Mr. Jens Holmboe, Director of the Bergens Museum, Bergen, Norway, and Prof. Carl Lindman, of Stockholm, have already joined our ranks; and it is believed the advantage will be mutual. Shortly we expect to enlist the co-operation of at least one famous Swiss botanist, as well as that of an active worker from northern France. In this connection members will note with pleasure that Mr. C. C. Lacaita has rejoined the Club.

It is much hoped that some of the new members, and several older ones whose parcels have been missed of late, will take part

in the Exchange next winter, when Mr. J. E. Little, of 19, The Avenue, Hitchin, has kindly undertaken to act as Distributor.

Back numbers of many of the Reports may be bought from the Treasurer at prices to be arranged with him.

H. STUART THOMPSON,
Hon. Sec.

BRISTOL,
May 1922.

The late CEDRIC BUCKNALL, Mus.Bac., Oxon, was not a member of this Club; but his valued help on *Euphrasia*, *Symphytum*, and other genera was so freely given to us that we should like to place on record a sense of the loss we, together with students of Systematic Botany in general, have sustained through his sudden death on Dec. 12th, 1921.—*Hon. Sec.*

RULES.

1. The objects of the Watson Botanical Exchange Club are to promote more intercourse between British botanists, to facilitate the exchange of dried specimens, and to study, as much as possible, British plants belonging to the critical genera.

2. The subscription is 10*s.* 6*d.* a year, and is due on Jan. 1st.

3. *a.* Members may send to the Distributor for the time being, before December 31st each year, parcels of plants for distribution, and they will receive in return plants in proportion to the number and quality of those sent.

b. Each plant or sheet of plants must bear a label, preferably with the heading and outline printed, giving the name, place where collected, collector's name, and date. The labels should *not* be attached to the specimens nor to the sheets. A series of duplicate labels should be sent for the Report; or preferably the data, in the order to be printed, may be written on sheets of paper, with a line left between each plant.

c. *At least six* sheets of each plant should be sent. Single specimens are for record only, not for distribution.

d. It is particularly requested that **good** specimens should be sent. **Scraps are not of the slightest use.**

e. No plants must be sent which are not included in the "List of Desiderata" for the current year (when published), unless new to the County or Vice-County in which gathered, or additional to those enumerated in the last edition of the London Catalogue.

f. Each member must let the Distributor have a London Catalogue of British Plants with a horizontal stroke (thus —) before each of his desiderata, which may be cancelled by a perpendicular stroke (thus +) when the plant is no longer wanted. These Catalogues should accompany the parcels. They will be returned in the return parcels. No MS. list will be accepted.

g. The plants in the parcels must be dried so that they can be mounted for the herbarium on sheets of paper 16 by 10 inches, and should be arranged in the order in which they are printed in the 10th ed. of the London Catalogue. Specimens of the same species should be put on separate sheets in one cover, each sheet being accompanied by one label, with the name of the genus and species, and its number in the London Catalogue, written on the outside of the cover. These covers should all be of uniform size; from 16 to 17 by 10 to 11 inches is recommended.

h. The covers should be made up in a parcel enclosed by two stiff cardboards measuring about 17 by 11 inches. Each board should bear the owner's name, and it will be used in the return parcel.

4. Members will very much increase the scope and work of the Club if they will send for examination any Batrachian Ranunculi, Rosæ, Rubi, Callitriche, Hieracia, Menthæ, Salices, Naiadaceæ, Junci, Carices, Characeæ, etc., the study of critical species being one of the principal aims of the Club. One specimen of each will, if possible, be returned to the owner after examination.

In the case of Hieracium and Erodium the colour of the style and stigma should be stated on the label.

The following quotation from Prof. Babington's "British Rubi" will show what a perfectly diagnosable specimen of a fruticose Rubus should consist of: "To judge properly of a bramble from a preserved specimen we require a piece of the middle of the stem with more than one leaf; the base and tip of the stem are also desirable. Likewise a piece of the old stem with the flowering shoot attached to it; the panicle with flowers, and the

fruit. We likewise want to know the direction of the stem throughout, of the leaflets, and of the calyx; also the shape of the petals and the colour of the styles; a note of these should be made when the specimen is gathered."

Willows should have the flower or fruit and the foliage taken from the *same bush*; or, if otherwise, the fact should be stated.

Cultivated specimens cannot be accepted by the Club, except in the case of rare plants, where there is danger of extermination; or in cases in which cultivation throws any additional light on the habits of the species. No plant should be sent if by so doing there is risk of its destruction or appreciable diminution in any locality.

N.B.—Insects will not attack Herbaria where naphthaline is used.

A complete set of the Club Reports, and a set of the Reports of "The Botanical Exchange Club of the British Isles" from 1877 to the present time, are kept by the Treasurer, and will be lent for a limited time to any member who wishes to refer to them.

KEY TO BRITISH SPECIES OF JUNCUS

By W. R. Sherrin, A.L.S.

A. Seeds appendaged.

- *a.* Plants large, 18 inches—3 ft.
  - *a''.* Perianth segments equalling the length of the capsule ..... *J. maritimus.*
  - *b''.* Perianth segments half the length of the capsule ..... *J. acutus.*
- *b.* Plant small, 4—10 inches.
  - *a.* Stem leafless.
    - *a''.* Flowers terminal; stem round ..... *J. triglumis.*
    - *b''.* Flowers lateral; stem channelled ... *J. biglumis.*
  - *b.* Stem with leaves.
    - *a''.* Inflorescence with 2 foliaceous bracts *J. trifidus.*
    - *b''.* Inflorescence with 1 foliaceous bract *J. castaneus.*

B. Seeds not appendaged.

a. Leaves reduced to radical sheaths.
a'. Pith continuous.
a''. Capsule not mucronate ..... *J. effusus.*
b''. Capsule mucronate.
a'''. Caespitose.
a''''. Capsule oval-turbinate, truncate ..... *J. conglomeratus.*
b''''. Capsule oblong-turbinate, shortly acuminated into a mucro ..... *J. diffusus.*
b'''. Plant extensively creeping ... *J. balticus.*
b'. Pith interrupted.
a. Capsule elliptic oblong, mucronate; stem deeply striate ..... *J. inflexus.*
b. Capsule rounded obovate blunt mucronate, stem finely striate... *J. filiformis.*

b. Leaves not reduced to radical sheaths.
a. Flowers clustered.
a. Flowers in a terminal head.
a. Plant with radical leaves only... *J. capitatus.*
b. Plant with leaves on the stem... *J. pygmaeus.*
b. Flowers in panicled clusters.
a. Capsule obtuse at apex ..... *J. supinus.*
b. Capsule acuminate at apex.
a. Outer perianth segments obtuse.
a. Capsule (except mucro) covered by the perianth leaves; panicle branches spreading ..... *J. obtusifolius.*
b. Capsule exposed above the perianth leaves; panicle branches erect. *J. alpinus.*
b. Outer perianth segments acute.
a. Capsule pale reddish brown; perianth recurved at tip..... *J. acutiflorus.*
b. Capsule dark brown, glossy; perianth not recurved at tip.
a. Leaves compressed; capsule gradually pointed ..... *J. articulatus.*
b. Leaves terete; capsule abruptly pointed ..... *J. nigritellus.*

b. Flowers solitary.
  a. Stem leafless, radical leaves many ... *J. squarrosus.*
  b. Stem with leaves.
    a. Perianth segments lanceolate, very acute.
      a. Panicle exceeding the bracts; flowers usually remote .... *J. bufonius.*
      b. Bracts exceeding the panicle: flowers crowded ... *J. tenuis.*
    b. Perianth segments blunt.
      a. Capsule roundly obovoid, longer than the perianth segments ..... *J. compressus.*
      b. Capsule oval oblong, equalling the perianth segments ..... *J. Gerardi.*

Ranunculus peltatus Schrank var. *floribundus* (Bab.). Pond, Westerleigh, W. Glos., v.c. 34, May 24, 1921.—I. M. Roper. Carefully pressed and correctly named specimens; interesting as possessing glabrous carpels.—W. H. Pearsall.

R. acris L. (*a* and *b*). Hitchin, Herts., v.c. 20, June and July, 1921.—J. E Little. On my sheet, marked (*a*), there are two forms. One, the earlier gathering, with stem and petiolcs densely hairy, lowest joint of stem short, petioles short and sprcading, answers well to *tomophyllus* Jord. The other, in fruiting stage, with glabrous stem and lowest internode much longer, radical leaves absent, is satisfactory *Boraeanus* Jord. The two plants on sheet (*b*) correspond and are *tomophyllus.* Stem and petioles densely hairy with spreading hairs, lowest internode short, radical leaves withered or absent.—Jas. W. Whitc.

R. parviflorus Linn. Rocky bank, Gloddaeth, near Llandudno, Carnarvon, v.c. 49.—Coll. Jos. Sidebotham, May 1868. Comm. S. H. Bickham.

Caltha palustris L. var. *Guerangerii* (Bor.). Border of wood, Compton Dando, N. Somerset, v.c. 6, March 21, 1921.—I. M. Roper. Beautiful specimens. I hope Miss Roper will send in a set next season showing the characteristic follicles of this variety, and so complete the excellent material.—C.E.S.

Fumaria occidentalis Pugs. Cultivated on waste ground, Newquay, Cornwall, Aug. 1907.—Coll. C. C. Vigurs and H. Groves. Comm. H. W. Pugsley.

Barbarea praecox R. Br. Ashton Avenue, Bedminster, N. Somerset, May 14, 1913.—J. W. White.

Lepidium ruderale L. Denizen or alien on waste ground by Rownham Ferry, R. Avon, N. Somerset, Oct. 8, 1921. Mr. White describes this as local and persistent about the docks and quays near Bristol.—H. S. Thompson. I agree. Nice examples in good fruit.—C.E.S.

Thlaspi alpestre Linn. Wall top, near Llanrwst, Carnarvon, v.c. 49.—Coll. Jos. Sidebotham, May 1867. Comm. S. H. Bickham. This plant has been placed under var. *occitanicum* (*T. occitanicum* Jord.) and is very similar to the N. Somerset form, although the notch of its capsules seems less developed. This variety is very close to the Matlock *T. virens* Jord., which hardly differs except in its nearly truncate capsules. Both of these forms are readily distinguishable from the *T. alpestre* of Teesdale, which is a more robust plant with obcordate instead of obcuneate capsules showing a well-marked notch scarcely exceeded by the style. In all of these plants the form of the capsules is not well seen until they are fully developed.—H. W. Pugsley. Immature plants from near Llanrwst sent to the Club by Mr. Comber (Report for 1914—15, p. 484) Mr. White preferred to leave with *T. sylvestre* Jord. as defined in the "Manual." Mr. Griffith's from the Denbigh side of Llanrwst (1919) Mr. Salmon believed came under *T. sylvestre* Jord. In "Top. Bot." the segregate '*occitanum*' is given from v.c. 49 and 50. In White's "Flora of Bristol," p. 158, is a useful note on *T. alpestre*, incidentally pointing out that Jordan's name was *occitanicum*, not *occitanum* as written in English books. This note, based upon careful comparison by White and Bucknall of Somerset material with Jordan's works, ends: "Not one of Jordan's segregates, in fact, accords with our own form, which, therefore, had perhaps better be left under the aggregate *T. alpestre*." It is obvious that Syme ("Eng. Bot." Ed. 3) did not understand Jordan's segregates, though Syme gave detailed notes and figures. Under *T. virens* he refers to and illustrates the long petioled root-leaves. It happens that all my numerous specimens from the Mendip area (1850—1922) have the "foliis radicalibus obovatis" of Jordan's *occitanicum*, but the leaves are not often 'glaucous,' nor are the spoon-shaped root-leaves "saepius grosse crenato-dentatis," though many are slightly crenate-toothed. The leaves exactly resemble those figured by Coste of the Corsican *T. brevistylum* Jord. The root-leaves are similarly obovate and abruptly contracted into a narrow petiole, up to an inch long, in my

examples from Llanrwst (Comber), Wensleydale (1884, Percival), Pateley Bridge, Yorks. (shorter petioles), Matlock (Playfair, 1900). Many of the numerous root-leaves doubtless die down by midsummer. By May 15, 1922, numbers are already eaten by some animal. On April 15, 1922, *T. alpestre* was well in flower about Winterhead, N. Somerset, though deep snow remained in hollows on Mendip at 700 feet. The pale mauve flowers there have very dark purple anthers. A month later the flowers appeared almost white. Will members continue to observe the root-leaves and the shape of the capsules of this perplexing aggregate? Rouy ("Fl. France," Vol. 2, 147) suggests that the Linnean diagnosis (in "Sp. Pl." 903) of *T. alpestre* cannot apply to any other plant than *T. brachypetalum* Jord., and more particularly to the form *T. salticolum*.—H. S. Thompson.

Hutchinsia petraea Br. Great Ormes Head, Carnarvon, v.c. 49.—Coll. Jos. Sidebotham, May 1867. Comm. S. H. Bickham.

Polygala calcarea F. Schultz. Hilly rough pastures above Combe Hay, Bath, N. Somerset, v.c. 6. At 500 ft. and 300 ft., scattered over several acres in the latter, a new locality. June 12, 1921. All fruit dropped by July 2.—H. S. Thompson.

Dianthus glaucus Huds. Limestone rocks near Charterhouse on Mendip, Somerset, v.c. 6, June 23, 1921.—H. S. Thompson. The robust form or variety with entire petals, taller and more branched stem, which I sent to the Club in 1917 and to Kew, and which in small quantity keeps constant near Charterhouse, I have never been able to hear anything about.—H.S.T.

Silene gallica L. Fallow cornfield near Godlingstone Farm Swanage, Dorset, June 10, 1921.—E. B. Bishop. This is a small-flowered form having the petals suffused with pale purple, which appears to indicate a transition to *S. quinquevulnera* L. It is the only form occurring in some parts of N. Devon, and differs considerably from the commoner British plant with relatively large white flowers. The variations of this species are somewhat summarily dealt with in the "Cambridge British Flora" (iii. p. 78).—H. W. Pugsley. This seems to have the flowers, erect habit, shorter fruiting pedicels, etc., of *S. gallica*. One specimen only sent.—C.E.S.

S. nutans Linn. Great Ormes Head, Carnarvon.—Coll. Jos. Sidebotham, May 1867. Comm. S. H. Bickham. Yes—*S. nutans*; not the allied more glabrous *S. dubia*, which has a more cylindrical calyx, etc.—C.E.S.

Cerastium pumilum Curtis. Limestone slopes of Durdham Down, Bristol, v.c. 34, April 1920.—H. S. Thompson. Yes, excellent material.—C.E.S. As is to be expected, there are extremely accurate and beautiful illustrations of this species and of *C. tetrandrum*, *C. semidecandrum*, *C. vulgatum* and *C. viscosum* in Curtis' "Fl. Londin." also good comparative diagnoses. In the new edition by Geo. Graves (first series, 1817—26) we read under *C. vulgatum*; "Such are the imperfect characters which Linneus has given to this and its neighbouring species *C. viscosus*, that it is no wonder that Curtis, in the first edition of this work (as well as other equally able botanists) should have misapplied the names, giving to the *vulgatum* the name of *viscosum* and *vice versa*."—H.S.T.

Arenaria tenuifolia L. Coarse ballast, G.N. Railway near Wilbury Hill, Herts., v.c. 20, June 11, 1921.—J. E. Little. Young calyces all somewhat glandular at the base; old becoming naked. These plants appear to correspond with those at Wilbury Hill, where there were almost none this year. Indeed, as a locality for plants, the gravel pit on Wilbury Hill will soon be non-existent, owing to invasion by camping-parties from Garden City. It is possible that the seeds were blown by a north wind from Wilbury Hill, which is not more than half-a-mile away. The plants are of a race distinct from those in several localities round Hitchin station, on the railway: the latter have uniformly a glabrous calyx.—J.E.L.

Lavatera cretica L. Embankment leading to railway bridge, Sheringham, Norfolk E., June 1921.—F. Long. It seems that Mallows with bright flowers have been known for a long time at Sheringham, but have always been regarded as *Malva sylvestris*, the increased colouring being due to the sea air. I sent some specimens to Mr. A. Bennett, who found them identical with specimens from Scilly. Further investigation is necessary.—F. Long. I can see no *L. cretica* present.—W. R. Sherrin. Not a *Lavatera* I believe, why is it not ordinary *Malva sylvestris*?—C.E.S. This has the reticulate-rugose carpels, the much smaller seed and other features of the polymorphic *Malva sylvestris*. It is chiefly the corollas of these two plants which are often so extremely alike. The three broad lobes of the epicalyx of the *Lavatera* distinguish it.—H.S.T.

Trifolium strictum L. St. Brelade, Jersey, June 13, 1894.—Jas. W. White.

Hippocrepis comosa L., var. *major* Rouy ("Fl. de France," Vol. V., p. 303). Plant straggling, 4—8 dec. caespitose and much branched. Pedunclcs long, 8—17 cent. Flowers rather large, 9—12 mm. Leaves large. Flat ground between R. Avon and the cliffs below Bristol, v.c. 34, June 12, 1921. I should consider these specimens and Rouy's var. merely a form.—H. S. Thompson.

Vicia varia Host. Barry, Glam., v.c. 41, September, 1920.—P. H. Holland. Comm. Nat. Mus. of Wales, Botany Dept. This was sent to B. E. C. 1920 as "*V. cracca* L. form." Having compared it with Continental and English (alien) specimens, I agree with Messrs. Britton and Salmon (B.E.C.R. p. 219) in placing it under *V. villosa* Roth, "Tent. Fl. Germ." II. par. 2, p. 182 (1793). In the specimens kindly sent me from Cardiff, and from this Club, the flowers are very slightly shorter than sometimes, and the young clusters of buds less densely silky than usual; but these are small matters, probably accounted for by climate and habitat. In regard to Mr. Wheldon's note (*loc. cit.* 220), in which he says it "belongs to the aggregate *V. villosa* Roth.", and "although the cilia of calyx-teeth are fairly long and spreading, and the pedunclcs short," he would "refer it to *V. dasycarpa* Ten., of which it might be var. *angustifolia* Rouy (*V. pseudocracca* Mérat) on account of its fewer and smaller leaflets and flowers and its slender habit;"—notwithstanding these last features, this plant cannot be placed with *V. dasycarpa* Ten. (1829), which is now considered = *V. varia* Host. (1831). *Inter alia* the flowers are not pendent, as in *villosa* and the Barry plant. Useful information upon this difficult group was given by Cavillier in his "Note sur . . . *Vicia elegantissima*" in "Ann. Conserv. et Jard. bot. de Genève," 1907—8. In France and Switzerland *V. villosa* is much rarer than *V. incana* Vill., which resembles *V. cracca* more than the Barry plant does.—H. S. Thompson

Lathyrus tuberosus L. Barry, Glam., v.c. 41, September, 1920. Coll. P. H. Holland. Comm. Nat. Mus. of Wales. Mr. Riddelsdell said in B.E.C. Report for 1920, p. 220, "A frequent ballast plant . . . Several strong patches maintained themselves at Cardiff for some years."—Hon. Sec.

Rubus durescens W. R. L. (Ref. No. 560.) Lane near Repton, Derby, v.c. 57, August 8, 1921. Leg. A. B. Jackson. Comm. W. C. Barton.

R. durescens W. R. L. (Ref. No. 559.) Lane near Morley, Derby, v.c. 57, August 9, 1921. Leg. A. B. Jackson. Comm. W. C. Barton. (Nos. 559 & 560.) Very good material, and well

representative of a distinct looking species. Focke does not refer to the form, which of course is very local, in his "Rubi Europæ."—H.J.R.

R. rusticanus × —— ? (Ref. No. 546.) High Beech, Epping Forest, v.c. 18, July 13, 1921.—W. C. Barton. Yes. Epping Forest produces a varied and beautiful series of these hybrids. I cannot put this 546 under any recognised name.—H.J.R.

R. rhombifolius Weihe. (Ref. No. 548.) Oxshott Common, Surrey, v.c. 17, July 14, 1921.—W. C. Barton. I certainly think so, though it is shade-grown and not altogether typical. The panicles are weak, but otherwise good; the stem leaves, however, are not characteristic in shape in the large majority of cases. Barton and I were together when we gathered it, and we felt that much of the material we saw was abnormal, partly owing to the extraordinary season.—H.J.R.

R. ? *leucanthemus* P. J. M. (Ref. No. 526.) Wimbledon Common, Surrey, v.c. 17, July 12, 1921.—W. C. Barton. (The ? is part of the citation.) This is the plant which was so referred to by Rogers.—H.J.R.

R. radula Weihe. (Ref. No. 532 b. W. C. Barton.) Wimbledon Common, Surrey, v.c. 17, July 12, 1921.—W. C. B. and H. J. R. (2) (Ref. No. 532 c. Same place.—W. C. B. Between type and *echioides*.—H.J.R.

R. echinatus Lindl. (Ref. No. 552.) Abrook Common, Surrey, v.c. 17, July 14, 1921.—W. C. B. Yes; but rather off type.—H.J.R.

R. Griffithianus Rogers. (Ref. No. 558.) Repton Rocks, Derby, v.c. 57, August 8, 1921. Leg. A. B. Jackson. Comm. W. C. Barton. Yes.—H.J.R.

Potentilla verna Linn. Great Ormes Head, Carnarvon, v.c. 49, May, 1868. Coll. Jos. Sidebotham. Comm. S. H. Bickham.

P. erecta × *procumbens* = *P. suberecta* Zimmeter. Garden at Millard's Hill House, near Frome, Somerset, with G. B. Milne-Redhead, who got it wild in the district, August 10, 1921. Leaves mostly sessile, some stalked.—H. S. Thompson. I think this is correctly named, although fruit is freely produced.—H. W. Pugsley.

Rosa canina L., var. *urbica* Lem. Clifton Down, Bristol, West Glouc., June and Sept. 1899.—Jas. W. White. *R. dumetorum* var. *urbica* Christ. The specimen having been gathered in bud,

the style clothing and shape of fruit, which constitute the two main points of difference from var. *submitis*, which I make the type of the species, are indeterminable, but they have the appearance of var. *urbica*.—A.H.W.-D. Yes; var. *urbica* Lem. There is a considerable difference in the amount of hairiness on different leaflets. In some the hairiness is all over the underside, in others it is confined to the midrib, and very thin on that. On leaf specimens it is thickest, on fruit specimens it is thinnest, seemingly depending on age.—W. Barelay.

R. stylosa, var. *evanida*. Hallen Marsh, W. Glouc., July 2, Sept. 27, 1921.—I. M. Roper. *R. stylosa*, var. *virginea* Rouy (*R. stylosa*, var. *evanida* Christ). I have now dropped the name *evanida*, being satisfied that the differences between it and *virginea* exist on paper only. This gathering, by its large leaflets, shows an approach to var. *Garroutei* Rouy, already on record for West Gloucestershire, but that should have somewhat biserrate leaflets and rose petals. These are apparently white.—A.H.W.-D. There is surely some mistake here. These specimens cannot be either var. *virginea* or var. *evanida*, since both of these have the leaflets and the peduncles glabrous. Here we have on the twigs in flower the leaflets with quite thickly hairy midribs and some of the nerves hairy, and also the peduncles, in some thinly, in others quite thickly, glandular. In the older specimens in fruit the hairs on the leaflets seem to wear off, but in very few cases can they be classed as glabrous In these the peduncles occasionally, but not often, lose all their glands. *R. stylosa* Desv., var. *systyla* Bast., or as the flowers are white var. *leucothroa* Desv.—W. Barelay.

R. systyla Bast. Folly Alder Swamp, Hitchin, Herts., v.c. 20, Sept. 21, 1921.—J. E. Little. *R. arvensis* Huds.—A.H.W.-D. Yes, *R. arvensis* Huds.—W.B.

R. dumalis Bechst. ? Purwell, Hitchin, Herts., v.c. 20, Sept. 18, 1921.—J. E. Little. *R. canina*, var. *Carioti* Rouy. Leaflets much too small and styles too glabrous for *dumalis* —A.H.W.-D. A small leaved bare styled member of the group *dumalis* Bechst. There are no glandular hairs on the pedicels so far as I can see with the microscope. Possibly pedicels is a mistake for petioles. I suppose var. *Carioti* Rouy is the same as *Carioti* Keller (*R. Carioti* Chabert, etc) on p. 17 of the Rosa vol. of Ascherson and Graebner's "Synopsis." If so it may be put to that or to any one of several others.—W. Barelay.

R. verticillacantha Mérat. Rowney Warren, Beds, v.c. 30, Sept. 2, 1921.—J. E. Little. The material is insufficient. The plant looks like a starved form. I do not think it is *verticillacantha*, though perhaps it belongs to the Andegavenses. Its prickles and leaflets recall *R. arvensis*, with which it may possibly be a hybrid.—A.H.W.-D. More and better material would be desirable. So far as the present specimen permits of an opinion, it may perhaps be best put as a very weak form of var. *verticillacantha* Mérat, weak in two respects, viz. the serration is hardly compound enough and the glands on the peduncles are very sparse—indeed, none at all, or one, or two, on the various pedicels. I don't see any signs of its being a hybrid.—W. Barelay.

R. dumetorum Thuill. ? Near Offley Grange, Herts, v.c. 20, Aug. 15, 1921.—J. E. Little. *R. dumetorum*, var. *urbica* Christ. Off type in its small leaflets and very prickly, glandular petioles. —A.H.W.-D. Yes, var. *urbica* Lém.—W.B.

R. collina Jacq. Left bank, Oughton Head, Hitchin, Herts., v.c. 20, Sept. 3, 1921.—J. E. Little. *R. dumetorum*, var. *Deseglisei* Christ (*R. collina* auct. Brit. non Woods nec Jacq.). I now make the var. *collina* of most British authors a synonym of var. *Deseglisei*, the true plant of Jacquin not having been satisfactorily determined as British.—A.H.W.-D. I agree with Col. Wolley-Dod.—W. Barclay.

Pyrus Aria Ehoh., var. *rupicola* (Syme). Millers Dale, Derby, v.c. 57, one tree, Aug. 12, 1921.—A. B. Jackson. Comm. W. C. Barton.

Sedum sexangulare L. Introduced on the edge of a shrubbery, Leigh Woods, Bristol, v.c. 6, July 1894.—J. W. White.

Callitriche polymorpha Lönnr. Peaty ditch, Unst, Shetland, Aug. 4, 1921.—R. J. Burdon. All the sheets showing mature fruits are *C. stagnalis* Scop. in my judgment. On one of these, however, Mr. D. Lumb found two fragments, each possessing a fruit with extremely long styles—not divaricate. It is therefore apparent that at least two species grow in this water, and we should like to see good fruiting specimens of the latter.—W. H. Pearsall. Certainly not Lönnroth's plant. The original specimens from Shetland were gathered by the late Mr. Beeby at Burn of Sundabanks, Seallory, Sept. 12, 1888; these were "probably referred to it," but from Unst Mr. Beeby gathered specimens that were definitely so named, and well agree with Swedish examples in my herbarium from "Scania, 1881, N. Hjàlmar Nilsson." It may be well here to quote Mr. Beeby

("Journ. Bot." 1888, p. 234). "In all the species the (stigmas) are greatly longer than the ovary in the early state; but in none are they more than about one-half longer (*C. hamulata*) than the ripe fruit, except in *C. polymorpha*. In this (teste Lönnroth) they are 3—4 times as long." In my specimens from Miteham Common, Surrey, they are four times as long. Lönnroth's paper in the "Botaniser Notiser" for 1867 was accompanied by beautiful drawings of the fruits. I should name Mr. Burdon's specimens *C. stagnalis*. While writing of Callitriche I wish someone would gather in good fruit the Callitriche named by Lord de Tabley *C. Lachii*, from water-courses on the Lach Eyes, Chester, and Tabley Moat, June 10, 1875. The specimens in the Dublin herbarium do not show really ripe fruit. On a specimen from Tabley Moat Lord de Tabley has noted, "Observe the long erect twisty persistent styles. Is this a new form?" The specimens he had at first named *C. obtusangula*. *See* B.E.C. Report for 1875 (1876), p. 18, and for 1876 (1878), p. 19. The plant is not named in the "Flora of Cheshire," p. 136 (1899), but probably appears under *C. obtusangula*.—A. Bennett.

Epilobium hirsutum L. "sport." Roadside rhine near Yatton, N. Somerset, Sept. 10 and 16, 1921.—H. S. Thompson. The Director of the R.B.G., Kew, reported on fresh specimens that "no trace of fungus or insect injury has been found. It seems probable that the condition is due to constitutional, genetic, abnormality. In other words, the plant is a 'sport,' due to abnormal gametes or fertilisation. Only detailed cytological examination of properly prepared material can determine this." Prof. Darbishire had said much the same. Mr. Wilson Worsdell wrote: "It is a widespread phenomenon, and I have seen it in many plants, and can see no reason why it should not occur in any plant. It is really a kind of 'wheat-ear' condition, in which the inflorescence is replaced by vegetative growth. But it is one thing to note its occurrence and explain it morphologically, and quite another to trace the cause thereof, and the conditions which determine it." The specimen received suggests the presence of gall mites (Eriophyes), but I cannot find any on the plant, and there do not appear to be any of the abnormal hairs usually associated with them. I regard the plant as a "sport."—L. B. Hall.

E. hirsutum L., var. *subglabrum* Koch. Hedge bottom, Westerleigh Hill, W. Gloster, v.c. 34, Aug. 17, 1921.—Ida M. Roper. Correctly named, I believe.—C.E.S.

E. palustre L. Ippolyts Common, Herts., v.c. 20, Aug. 3 and 30, 1921.—J. E. Little. I think that the sheets now sent all come under type. *E. parviflorum* was growing intermixed, and *E. hirsutum* close at hand. Some plants, reserved for further study, suggest *E. palustre* × *parviflorum*; they vary much in their combinations of the characters of the two species.—J.E.L.

E. tetragonum Curt. Beaton, Hitchin, Herts., v.c. 20, Sept. 20, 1921.—J. E. Little. This agrees, particularly in the long "pods," with the excellent plate in Curtis, "Fl. Londin," new ed. Vol. I. (1817), and with specimens in my herbarium.—H.S T.

Apium nodiflorum Reichb. fil. var. *pseudo-repens* H. C. Watson. Small stunted plants among rushes at foot of Sandhills, Berrow, N. Somerset, July 9, 1921, after long drought. *See* "Journ. Bot." 1906, p. 186.—H. S. Thompson. The small bits with broad leaflets and stalked umbels well represent Watson's var. *pseudo-repens*, but, as H. S. T.'s pregnant note suggests, this is only a *form* due to situation and special conditions of moisture.—H. J. Riddelsdell. Mr. E. G. Baker has seen this, and agrees.—W.R.S.

Fœniculum vulgare Mill. (seedlings). Tickenham Hill, N. Somerset, Aug 31, 1921.—I. M. Roper.

Oenanthe pimpinelloides L. In pascuis humidulis circa Swanage, et alibi in agro Dorsetsiensi habitat, Julii 16, 1889. —Jas. W. White.

Oe. Lachenalii C. Gmel. Dwarf, salt-marsh form. Mouth of R. Brue, Somerset, v.c. 6, July 7, 1921.—H. S. Thompson.

Galium boreale Linn. Falcon Clints, Teesdale, Durham, v.c. 66, Sept. 1843. Coll. H. Ibbotson. Comm. S. H. Bickham.

G. erectum Huds. Quarry near Hovingham, N.E. Yorks, v.c. 62, July, 1860. Coll. H. Ibbotson. Comm. S. H. Bickham.

G. palustre L. *forma.* Dry side of shady lane near Whitchurch, N. Somerset, July 2, 1921. Stems weak, rough, shortly glandular. Leaves 4—6, blunt, oblong-lanc, slightly ciliate. Flowers *very small*; 4 petals, 4 purple anthers. Turns black on drying.—H S. Thompson. *G. Witheringii* Smith, "Eng. Bot" t. 2206; "Eng. Fl." i. 200. Note the forwardly-directed bristles on the leaf-margins, of which there is no mention in Syme, "Eng. Bot." We have the same form on Wimbledon Common, and it gave me trouble, as it did not fit the descriptions of either *G. palustre* or *G. uliginosum.*—A. J. Wilmott. Now usually considered a var. of *palustre*, Rouy places Smith's plant as var. β of

the subsp. *G. debile* Desv. (*pro sp.*), 1818. Smith, in "Eng. Flora," describes the buds as purplish, and they are so coloured on tab. 206 of my copy of his "Eng. Bot." Ed. II. 1835. (The colouring of the plates in this edition varies considerably in different copies.) On the great Turfmoor of Somerset I have observed the whole plant purplish, whereas true *palustre* in the same bog remained green and stouter. Smith points out (*l.c.* p. 201) quite correctly that "Dr. Withering's figure erroneously represents the *stem* clothed with long, straight, erect hairs"—H.S.T.

Asperula cynanchica. Worlebury Hill, N. Somerset, Aug. 14, 1887.—Jas. W. White.

Centranthus ruber L. Limestone rocks, Clifton, Bristol, July 25, 1896.—J. W. White In Provence this plant often grows in rough hilly fields and olive groves as well as on rocks, old walls and by railways, and flowers from Jan. until July.—H.S.T.

Aster Linosyris Bernh. Great Ormes Head, Carnarvon, v.c. 49.—Coll. Jos. Sidebotham, July 1867. Comm. S. H. Bickham.

Bidens cernua L. Form with white simple and (some) glandular hairs on stems Ditch, north of Yatton, N. Somerset, v.c. 6, Sept. 16, 1921.—H. S. Thompson. Having gathered this series which at first appeared to me abnormal in another respect, rather than destroy them I put them in the press. The hairy form is probably as frequent as the glabrous.—H.S.T.

Carduus crispus L. Tall (6—8 ft.), few flowered, long peduncled form. By stream in dip between Marksbury and Priston, N. Somerset, July 2, 1921.—H. S. Thompson.

Cirsium anglicum DC. (*Carduus pratensis* Huds.). Peat-moor, Shapwick, N. Somerset, Aug. 16, 1886.—Jas. W. White.

Centaurea memoralis Jord. f. (Ref. No. 601.) Ashmansworth, N. Hants., v.c. 12, on chalk, 750 ft., Aug. 7, 1921.—W. C. Barton.

C. aspera L. The Quenvais, Jersey, May 31, 1896.—J. W. White.

C. solstitialis L. Amongst lucerne, near Berrow, N. Somerset, Aug. 1913.—J. W. White.

Pterotheca nemausensis Cass. (Det. at Kew.) In sainfoin and lucerne, Wilbury Hill, Beds., v.c. 30, May 17 and 29, 1921.—J. E. Little. *See* B.E.C.R. 1920, p. 27. The name *Lagoseris*

nemausensis (Gouan) Koch is preferred both to the above and to *Pterotheca sancta* C. Koch. Mr. H. S. Thompson writes that the plant has been extending its range northwards in France for some years.

Hieracium zetlandicum Beeby. Northmaven, Shetland, July 25, 1921.—R. J. Burdon. I think correctly named; a rare species.—H. W. Pugsley.

H. protractum Lindeb. Loch cliff and Burrafrith, Unst and Cliva Hill, Mainland, Shetland, Aug. 9, 1921.—R. J. Burdon. These are rightly named for the most part, but three sheets include one dwarf example of *H. crocatum*, Fr., and a fourth, unlabelled, seems to be a mixture of young *H. demissum*, var. *pulchelliforme* W.R.L. with *H. zetlandicum* Beeby. These wild specimens of *H. protractum* show a remarkable contrast with the cultivated material distributed through the Club by Mr. Bickham two years ago.—H. W. Pugsley.

Hieracia omitted from last Report.

H. ———. Ronas Vae, Mainland, Shetland, July 28, 1920.—Coll. R. J. Burdon. Comm. Little. *H. lasiophyllum* Koch, I think, but the material does not admit accurate work.—H.J.R. Mr. Pugsley wrote of this very poor material that it belongs to the sub-cauligenous division of the *Oreadea*, and seems to be identical with a Shetland specimen collected by Beeby in 1891 and referred to a form of *H. oreades* Fr.

H. ——— (Ref. No. 2465.) Growing with *H. lima* on slope in Cheddar Gorge, N. Somerset, May 22, 1920. Leaves spotted dark purple. *H. cyathis* Ley.—H.J.R. (Also Ref. No. 2466.) Leaves not spotted. Same locality. One sheet of each for naming.—H. S. Thompson. *H. cyathis* Ley. H.J.R. and H. W. Pugsley.

Lobelia urens Linn. Kilmington Hill, near Axminster, S. Devon.—J. Cosmo Melvill, Aug. 1, 1873. Comm. S. H. Bickham.

Pyrola rotundifolia Linn., var. *arenaria* Koch. Sandhills, Lytham, W. Lancs.—Coll. Jos. Sidebotham, Aug. 1852. Comm. S. H. Bickham.

Limonium binervosum, var. *procerum* C. E. Salmon. Great Ormes Head, Carnarvon, v.c. 49, Aug. 16, 1869.—S. H. Bickham. I agree. This, apparently, should now be called *S. binervosa* G. E. Sm., var. *procera* Rony.—C.E.S.

Statice reticulata, *S. caspia* (Willd.). Holkham, Norfolk, Aug. 1852.—W. L. Notcutt. Comm. S. H. Bickham. *S. bellidifolia* DC. = *S. reticulata* Huds. = *S. caspia* Willd.—C.E.S.

Erythraea ramosissima Pers., var. *pulchella* Griseb. *ap* DC *Prodr.* = *E. pulchella* var. B. Fries. Small and often 1-flowered seedlings from Salt Marsh at mouth of R. Brue, N. Somerset, July 1921. In 1898 from the same marsh larger specimens with broad leaves were considered by C. E. Salmon a rather remarkable form of *pulchella*.—H. S. Thompson. Yes, Persoon's name dates from 1807, Fries' from 1814. Why Fries' name has been so long used seems odd. It seems to be the same as *E. pulchella* Fr., sub-var. *pusilla*, Coss. et Germ. "Fl. Paris," p. 258 (1845).—A. Bennett.

Symphytum officinale × *peregrinum*? Sewage Farm, Hitchin, Herts, v.c. 20 (with *S. peregrinum*), Sept. 12, 1921.—J. E. Little. The colour of the flowers is a dirty white suffused with violet; when dry the latter colour becomes more evident. The leaves are decidedly decurrent; the hairs upon them are not, I think, uniformly from a bulbous base. *S. officinale* does not to my knowledge grow nearer than on the Ivel Navigation near Clifton, Beds., about five miles away.—J. E. Little.

S. tuberosum L. Wood, Compton Greenfield, W. Glou., v.c. 34, May 11, 1921.—Ida M. Roper.

Linaria repens Mill. × *vulgaris* Mill. Railway bank, Langton Matravers, Dorset, June 26, 1921. Both parents near.—E. B. Bishop. Good examples of this interesting hybrid.—C.E.S.

Limosella aquatica L. Shore of Mere mere, Cheshire, v.c. 58. Coll. Jos. Sidebotham, July, 1868. Comm. S. H. Bickham.

Veronica acinifolia L. Arable field, Chiddingfield, Surrey, v.c. 17. Coll. Mrs. Wilde, April 25, 1920. Comm. E. B. Bishop. Yes.—W. R. Sherrin.

V. hybrida L. St. Vincent's Rocks, near Bristol, v.c. 34. Coll. G. H. K. Thwaites, 1843. Comm. S. H. Bickham.

V. Anagallis – aquatica L., var. *anagalliformis* (Bor.). Chamberlain Mill, Bere Regis, Dorset, June 22, 1921.—Ida M. Roper.

Euphrasia. Cunningsburgh, mainland, Shetland, July 20, 1921.—R. J. Burdon. This remarkably fine eyebright, which Mr. Burdon collected also in Unst, and Dr. Druce near Loch Spiggie, appears to be a form of *E. borealis*, from the type of which it differs in being larger in all its parts, and especially in

its extremely fine purplish corollas, which, it may be noted, show little, if any, indication of the lengthening tube, given as a character of Wettstein's generic subdivision *grandiflorœ* —H.W.P.

Euphrasia. Loch Wattee, Unst, Shetland, Aug. 8, 1921.—R. J. Burdon. These plants have the aspect of *E. occidentalis* Wettst., but the leaf-cutting is too obtuse for that plant, and I cannot see that the foliage is glandular. The specimens also recall some forms of *E. foulaensis*, except for the shape of the capsules, and they are not unlike some forms of *E. minima* Jacq. I think, on the whole, that they are probably a condensed state of *E. scotica* Wettst.—H.W.P.

Euphrasia. Lundavick, Unst, Shetland, Aug. 1, 1921.—R. J. Burdon. There may be a mixture here, and I am doubtful about this gathering. Possibly it is a weak state of *E. borealis.*—H.W.P.

Euphrasia. Loch Spiggie, Dunrossness, Shetland, July 20, 1921.—R. J. Burdon. I think a very sparingly clothed form of *E. occidentalis* Wettst.—H.W.P.

Euphrasia. Ugea, Unst, Shetland, Aug. 6, 1921.—R. J. Burdon. There is a mixture here. Some plants are *E. foulaensis*, and others appear to be weak *E. borealis.*—H.W.P.

Euphrasia. Clibberswick, Unst, Shetland, Aug. 11, 1921.—R. J. Burdon. *E. borealis* Towns.—H.W.P.

Euphrasia. Loch Asta, Mainland, Shetland, July 27, 1921.—R. J. Burdon. I believe this to be a large-flowered form of *E. foulaensis* Towns. But the plants are too young to show the characteristic broadly elliptic, emarginate capsules.—H.W.P.

Euphrasia. Lines of Dunburgh, Dunrossness, Shetland, July 28, 1921.—R. J. Burdon. *E. borealis* Towns.—H.W.P.

Euphrasia. Jedburgh, Aug. 17, 1921.—R. J. Burdon. I think a slender form of *E. curta* v. *glabrescens* Wettst., with a variable degree of hair-clothing. Some of the specimens also show a few shortly-stalked glands on the foliage, recalling those of *E. brevipila.*—H. W. Pugsley.

Calamintha sylvatica Bromf. Apes Down, Isle of Wight, Sept. 12, 1918.—H. W. Pugsley.

Teucrium Scordium L. Braunton Burrows, N. Devon. Coll. John Ralfs, Sept. 1838. Comm. S. H. Bickham.

Amaranthus deflexus L. Hastings, E. Sussex, Oct. 26, 1921.—L. B. Hall. Yes; in Nyman's "Conspectus Florae Europacae" it is placed in the genus Euxolus with *E. viridis* Mog. (*A. blitum* L). The genus is separated from Amaranthus by the indehiscent capsule. *E. deflexus* is distinguished from *E. viridis* Mog. by the shape of the fruit and by the pubescence on the upper branches and petioles.—W. R. Sherrin.

Salicornia dolichostachya Moss. On wet mud, Berrow Flats, N. Somerset, v.c. 6, Aug. 31 and Sept. 22, 1921. New to the Bristol Channel, including v.c. 6.—H. S. Thompson. Yes.—E. J. Salisbury.

S. herbacea ? × *ramosissima* Moss and Salisb. Muddy coast below Portbury, N. Somerset, Oct. 21, 1921.—H.S.T. *S. herbacea* × *ramosissima*—nearer former parent.—E. J. Salisbury.

? *S. ramosissima* Woods. Young, starved form simulating *S. gracillima*, which we first thought it to be. Uphill Wharf, N. Somerset, Sept. 29, 1921. On drying mud, coal dust, and brick earth, but not on the driest part of this ground, with *S. prostrata*.—H. S. Thompson. Starved form of *S. ramosissima*.—E. J. Salisbury.

S. ramosissima Woods. (5) Salt marsh at mouth of R. Axe, N. Somerset, Sept. 29, 1921.—H.S.T. Near *S. herbacea*, probably × with *S. ramosissima* —E.J.S. (6) Muddy coast below Portbury, N. Somerset; the dominant species there, Oct. 21, 1921.—H.S.T. Yes; *S. ramosissima* in mature fruit.—E.J.S. (7) Berrow Flats, N. Somerset, on wet mud, Oct. 4, 1921.—H. S. Thompson. Same as No. 6.—E. J. Salisbury.

S. prostrata Pallas, var. *Smithiana* Moss & Salisb. Uphill Wharf, N. Somerset, Sept 29, 1921. On dry mud, coal dust, etc., nearest the sea-wall. Terminal spikes longer than usual. Central flowers much larger than the lateral ones.—H. S. Thompson. Yes; *S. prostrata* var. *Smithiana*.—E J.S.

? *S. prostrata* Pallas, var. *Smithiana* Moss & Salisb. Berrow Flats, N. Somerset, Sept. 22, 1921. Name suggested by C. Bucknall for this woody, ascending form with very long lower branches, some of which were torn off by the collector.—H. S. Thompson. This appears to be *S. prostrata* var. *Smithiana* Moss & Salisb. × probably with *S. ramosissima*. It is certainly not typical of the former species.—E. J. Salisbury.

Polygonum Raii Bab. Sandy cornfield, adjoining Portheothan Bay, N. Cornwall, v.c. 1, Aug. 22, 1921. With *Eryngium maritinus*, *Cakile*, *Salsola*, *Lycopsis arvensis*, *C. Soldancella*, etc.—H. S. Thompson.

Euphorbia hiberna L. Root from the Lyn Valley, N. Devon; cult. at Clifton, May 28, 1920. In cultivation this spurge thrives well in any sheltered spot, whilst *E. pilosa* seems invariably to die out in a short time.—J. W. White.

E. amygdaloides L. (stem fasciated). Liveridge Wood, Tickenham, N. Somerset, April 30, 1921.—Ida M. Roper.

Mercurialis ambigua Linn. Chichester, Oct. 3, 1921.—R. J. Burdon. *M. ambigua*, usually placed as a variety under *M. annua*, is distinguished by an admixture of male and female flowers in the inflorescence, and by its relatively narrow leaves. In these specimens I can find no male flowers, nor are the leaves very narrow: and I believe they are only female plants of ordinary *M. annua*. Doubts are east on the constaney of this variety in Syme's "English Botany," and in a recent paper by C. Yampolsky, "American Nat." p. 280 (1920), it is stated that sex is not a fixed condition in *M. annua*, and that individual plants may change in this respect during their life cycle.—H. W. Pugsley. I agree with Mr. Pugsley; the speeimen sent me has only ♀ flowers and comes under the type. Last year I examined a large number of narrow-leaved plants in Bristol, and found they were all ♀.—H.S.T.

Salix alba L., var. *coerulea* (Sm.) ♂. Brook End, St. Ippolyts, Herts., v.c. 20, March 20 & June 5, 1921. The June leaves are not so charaeteristic, but a sheet enclosed of the leaves in Oetober from the same tree shows that they correspond with those of the other sets gathered later. The trees planted are mixed, some *S. alba* (type), some var. *coerulea*, and some *S. fragilis*.—J. E. Little. In regard to the willows distributed by Mr. Little, referenee may be added to "Journal of Botany," March 1922, p. 78, "where some notes on my observations of the last two years, and incidentally of the specimens sent to the W.B.E.C., will be found."

S. alba, var. *coerulea* (Sm.) ♂. Planted, from stands from Terrington St John, W. Norfolk, on Hitchin Sewage Farm, Herts., v.c. 20, April 18 & Sept. 12, 1921.—J.E.L. It is stated in B.E.C.R. 1910, p. 525, that *S. alba*, var. *coerulea* "is known only as a female tree." These ♂ trees, however, appear to correspond exactly to ♀ trees also planted at Hitchin. I have

made repeated observations and comparisons of the two sets and have failed to detect any difference. They are affected by a gall which causes an arrest of the growth of the apex of the shoots, and the formation of a 'rose' of deformed leaves persisting through the winter, and very conspicuous among the bare twigs. I send a sheet showing this gall.—J. E. Little. "Looks rightly named."—E. F. Linton.

S. alba L., var. *coerulea* (Sm.) ♀. Planted, Hitchin, Herts., v.c. 20, from stands from Witham, Essex, in 1913 by Mr. J. Beddall Smith. Coll. J.E.L., April 20 & July 13, 1921. In October 1920 the leaves, while pubescent with appressed hairs beneath, were greenish below. Up to September 1921 the under surface of the lamina has remained covered with closely silky pubescence and very blue-grey in colour, except on the earliest leaves. The laminæ are longer and broader than in typical *S. alba* (up to 10 cm. long and 2 cm. broad). The shoots of the year are of a greenish colour, and contrast with forms of *Salix alba* approaching var. *vitellina* which are not uncommon here (one sheet passed by E. F. Linton), as well as with var. *vitellina* proper.—J. E. Little. "Seems rightly named."—E. F. Linton.

S. alba var. *vitellina* (C.) × *triandra* L. ♂ Osier bed, Cadwell, Beds., v.c. 30. Coll. J. E. L., April 8 and July 26, 1921. Trees 30 ft., planted about 6 ft. apart, from stands, having the outline of a Lombardy poplar. Twigs orange to golden yellow, terete. Stamens often 2, sometimes 3, or rarely 4. Leaves soon glabrous, and glaucous beneath; margin sometimes finely serrate. The marginal glands are continued nearly down to the top of the petiole.—J. E. Little. "I think your suggested solution is very likely right . . . The characters are rather strongly flavoured with *S. triandra*, in forms of which I have often been puzzled by the irregular number of stamens, possibly due to crossing; the leaves, though serrate, seem half-inclined to be subentire in places. The terete twigs favour *S. alba*, and the colouring is strongly of *S. vitellina*," April 10, 1921. [And later], "Correct," Oct. 1921.—E. F. Linton.

× *S. acuminata* Sm. ♀. Pond on Midland Railway, near Icknield Way, Ickleford, Herts, v.c. 20. Coll. J. E. Little, April 18 and Aug. 26, 1921. (*See* remarks in B.E.C.R. 1921.) "Very fine specimens of S. *acuminata* Sm."—E. F. Linton.

S. caprea × *viminalis* ♀ Pond by Midland Railway, near Icknield Way, Ickleford, Herts., v.c. 20, April 18 and May 16, 1921.—J. E. Little. "I suppose correct; but I am not quite satisfied that *S. caprea* is the other parent."—E. F. Linton.

S. caprea × *Andersoniana.* Sand-dune slack, Sandscale, N. Lancs., v.c. 69 B, flowers May 5, 1921, leaves July 16, 1921. (*See* Rep. B.E.C. 1916, p. 587.) This hybrid is interesting from the fact that *S. Andersoniana* is usually a subalpine shrub, and that I have not yet met with it in N. Lancs. Specimens of this hybrid were gathered from the same plant in 1916 for one of the Rev. E. F. Linton's fascicles. The leaves of the examples now distributed were taken a month earlier, and show a greater degree of woolly-hairiness beneath. Holders of the fascicle will be interested to learn that Mr. Linton has again confirmed the name.—W. H Pearsall. "This willow, which Mr. W. H. Pearsall has sent me from the Lancashire sandhills, is obviously derived from *S. Andersoniana* Sm., so long known under the name of *S. nigricans.* (*See* my 'Monograph of British Willows' for the change of name.) But the blackening of the foliage is clearly modified by some other species, which I take to be *S. caprea* L. The variations of *S. Andersoniana* are usually more or less hairy; but the woolly-hairy underclothing of the leaves of this plant are a distinguishing feature of the Goat Sallow—*S. caprea*; and if they are less so in the older specimens of 1916, gathered later in the season, I attribute this to the glabrescing effect of the other parent."—E. F. Linton.

× *S. Smithiana* Wimm. (= *S. caprea* × *viminalis.*) Hedge bottom, Westerleigh, W. Gloster, v.c. 34, April 20 and Aug. 17, 1921.—Ida M. Roper. I would write the name of this willow as *Salix cinerea* × *viminalis* (*Smithiana*, Willd.). This is taking a broad view of the hybrid. Several of the forms or individuals have been described under distinct specific names; but a great many others continue to turn up that will not fit under those described. *S. cinerea* is a most variable willow, and we may expect its hybrids to vary likewise. *S. caprea* × *viminalis* gives another series of forms, which may be placed under *S. sericans* Tausch. They are stronger and taller plants, with more pithy shoots, and more silky or whiter leaves. On the other hand, *S. cinerea* × *viminalis* gives leaves that are sordid or rusty underneath.—J. Fraser. The summer shoots of this specimen show remarkably small leaves for this hybrid, but the quickly-glabrescent stem and leaf-buds point to *S. caprea* rather than *S. cinerea* as one parent. The summer shoots seem to be quite astipulate, which, I think, is unusual.—H. W. Pugsley.

S. cinerea × *viminalis* ♂. Near Sootfield Green, Herts., v.c. 20, April 5 and Aug. 1, 1921. Coll. J. E. Little. Five bushes of this hybrid could be distinguished across a ploughed field

from *S. viminalis*, *S. cinerea*, and *S. caprea* close by. The colour of the upper surface of the lamina remained of a lighter green from April to August.—J. E. Little. "An interesting form from its brighter green colouring."—E. F. Linton.

S. aurita × *cinerea* ♀ B.M.L. 5 & 6. Burleigh Meadows, Langley, Hitchin, Herts., v.c. 20, April 21 and July 30, 1921.—J. E. L. The sheets marked B.M L. 5 and B.M.L. 6 are from two bushes growing close together, and within a few yards of *S. aurita* (Det. E. F. Linton). B.M.L. 5 were not sent by him; but he says of B.M.L. 6, "*S. aurita* × *cinerea* ♀, correct."—J. E. Little.

Populus tremula L. Hedgerow, Yate Lower Common, West Gloucester, v.c. 34. Flowers April, 1911; leaves, normal and stump-shoot, Aug. 20, 1921. The long interval between the gatherings is accounted for by the trees being felled shortly after I took the catkins.—Jas. W. White. Mr. A. B. Jackson agrees.

Crocus nudiflorus Sm. Nottingham meadows.—Coll. Jos. Sidebotham, Sept. 1847 and March 1848. Comm. S. H. Bickham.

Stratiotes aloides L. Burnt Fen Broad, E. Norfolk, July 1921. —S. H. Long.

Narcissus Pseudo-Narcissus, var. *lobularis* Haw. Tenby, Pembrokeshire, 1917.—W. Gunter. Comm. Nat. Mus. of Wales, Bot. Dept. This plant agrees very closely with Haworth's description of *Ajax lobularis*, which is stated by him to grow wild near Tenby. Another closely allied plant, however, had been previously described by Salisbury in "Prod. Stirp. Chapel Allerton," p. 221 (1796) as *Narcissus obvallaris*, and Herbert, in his *Amaryllideae*, p. 304 (1837), takes up *N. obvallaris* as a variety of his *N. luteus*, citing for it the lower figure (*N. major*, var. γ) of Curtis, "Bot. Mag." No. 1301, and remarking that Haworth's *lobularis* is a similar form. In recent years *N. obvallaris* has usually been regarded as the Tenby Daffodil, at any rate in horticulture, and the name *N. lobularis* has been applied to a very different dwarf form (imported from the Continent, I believe) that somewhat resembles *N. nanus*. The "Ajax" or trumpet-flowered section of *Narcissus* is badly in need of revision, and the correct name for the Tenby plant is not certain. I do not consider it a var. of *N. Pseudo-Narcissus* L., but think it is more closely related to *N. major* L., as did both Curtis and Herbert. It is perhaps best left at present as a distinct species under Salisbury's name of *N. obvallaris*.—H. W. Pugsley.

Scilla autumnalis Linn. Daddy Hole plain, Torquay, S. Devon.—Coll. Jos. Sidebotham, Aug. 1877. Comm. S. H. Bickham. In Curtis "Flora Londinensis," Ed. 2 by Geo. Graves, Vol. I. (1817), we are told that "in certain parts of which (Blackheath) it may still be found in abundance. . . . . it is found also near Ditton, on Moulsey-Hurst, over against Hampton Court, and not many years since was observed sparingly on Kew Green." In Parkinson's time it grew "on a bank by the Thames side, at the hither end of Chelsea." De Crespigny still mentioned several of these stations in his "New London Flora," 1877.—H.S.T.

S. verna Huds. Sandhills near Llandudno, Carnarvon, May 1867.—Jos. Sidebotham. Comm. S. H. Bickham.

Gagea lutea Gawler. Stittenham Wood, near Malton, N.E. Yorks., v.c. 62, April 1844.—Hy. Ibbotson. Comm. S. H. Bickham.

Juncus filiformis L. Derwentwater, Cumberland, June 26, 1921.—L. B. Hall.

J. effusus × *inflexus* (*J. diffusus* Hoppe). Ippolyts Common, Herts., v.c. 20, Aug. 3, 25, 28, 1921.—J. E. Little. This hybrid is not recorded for N. Herts., nor for Beds. On the assumption that it ought to occur where *J. effusus* and *J. inflexus* grow together in quantity, I searched several areas, and was successful in two, the present locality, and at Radwell Mill, Herts. The capsules are, I think, uniformly sterile. I should describe the stem as more rigid than that of *J. inflexus*, and on the average taller.—J.E.L. I believe correctly named. Sheaths shining; pith continuous, etc Mr. Little's plants seem uniformly sterile, which supports the theory of hybrid origin, a suggestion which H. C. Watson so strenuously denied.—C.E.S.

J. subnodulosus Schrank. Penrhoslligwy, Anglesey, Sept. 13, 1905.—A. O. Hume. Comm. S. Lond. Bot. Inst.

J. triglumis L. Widdybank Fell, Teesdale, Durham, v.c. 65, July 8, 1903.—A. O. Hume. Comm. S. Lond. Bot. Inst.

Luzula spicata DC. Ben Lawers, Perth, v.c. 88, Aug. 31, 1896.—C. P. Hurst. Comm. S. Lond. Bot. Inst.

L. multiflora DC. and var. *congesta* (Lej.). Growing together in bog on west slope of Blackdown, N. Somerset, v.c. 6, June 22, 1921.—H. S. Thompson.

L. multiflora DC. var. *congesta* (Lej.). Lostwithiel, Cornwall, v.c. 2, June 4, 1901.—A. O. Hume. Comm. S. Lond. Bot. Inst.

Typha angustifolia L. Afon Wen, Carnarvonshire, Aug. 14, 1905.—A. O. Hume. Comm. S. Lond. Bot. Inst. The specimen sent me is a monstrous form.—H.S.T.

Sparganium minimum Fries. Shapwiek Peat Moor, N. Somerset, v.c. 6, July 8, 1921. In dried-up rhine, after drought.—H. S. Thompson.

Acorus Calamus L. Hale Moss, Altrineham, Cheshire. Comm. S. H. Biekham.

Alisma ranunculoides L., var. *repens* (Davies). Dowrog, St. Davids, Pembroke, Aug. 24, 1905. Leg. E. F. Linton. Comm. S. Lon. Bot. Inst. Is not this flowerless *A. natans* L. ? The specimen sent shows two of the characteristic obtuse floating leaves.—H. W. Pugsley. Mr. Linton was hardly likely to have named this wrongly, even if there were no flowers or fruit visible, and notwithstanding a few obtuse floating leaves. The floating leaves in *A. natans* are described in books as blunt or obtuse, but in plate 539 in Smith's "Eng. Bot." Ed. 2, Vol. III., they are not blunt, but ovate elliptical. The variety was described (as a species) first by Lamarck in 1790, and later in Davies' "Welsh Botanology," p. 36 (1813), and figured in Cavanilles "Icones Hispan." (1791—1801). For further information *see* Smith's "Eng. Flora," Ed. 2, Vol. II. (1828), p. 205—6. This exeellent work is too rarely eonsulted in these days. But what is var. *zosterifolius* Fries *ap* Koeh Syn. Ed. 2, of which Rouy says, "plante ordinairement stérile."—H.S.T.

Elisma natans Buchenau. Llanberis, v.c. 49, Aug. 15, 1905.—A. O. Hume. Comm. S. Lon. Bot. Inst.

Potamogeton perfoliatus L. Coniston Lake, N. Lancs., v.e. 69 B, Sept. 10, 1921. This is a rather extreme British form, found in the deep-water of our English lakes, *e.g.* Windermere, Coniston, and Esthwaite Water. It would come under var. *lanceolatus* Blytt, and be ineluded in var. *gracilis* Hägstrom ; but we are of the opinion that the so-called varieties of these species are—in Britain at any rate—merely states induced by loeal eonditions. We hope to deal more fully with this point in the "Journal of Botany" shortly.—W. H. Pearsall. Yes ; one of Mr. Pearsall's beautifully-dried specimens that do not exactly fit any named variety, being somewhat between the var. *lanceolatus* Blytt, and the var. *oblongifolius* M. et K. (1824) in De Candolle's herbarium at Geneva.—A. Bennett.

P. pusillus L., sub.-sp. *lacustris* Pearsall. Esthwaite Water, N. Lanes., v.c. 69 b, Sept. 3, 1921. (*See* "Journ. Bot." June 1921.)—W. H. Pearsall. There is no doubt both Dr. Hagström and Mr. Pearsall are right in saying this is not the *P. Sturrockii* A. Benn. of Scotland!, though I had so named it. It is a good sub-sp., and I have it from several parts of the world; the only doubt is—is it one of Dr. Fischer's named varieties of *pusillus* in "Ber. Bayn. Bot. Ges." XI. (1907)? if not, it must stand as a good sub-sp.—A. Bennett.

Aponogeton distachyon. Tremongh, near Penryn, Cornwall, April 8, 1910.—Leg. R. Gill. Comm. S. Lond. Bot. Inst.

Eriocaulon septangulare With. Loch Sligachan, Isle of Skye, v.c. 104.—Coll. G. E. Hunt, Aug. 1863. Comm. H. S. Bickham.

Cyperus longus L. (1) Swampy meadow (full of it) near Treriee Mill, Cornwall, v.c. 1. (2) Damp valley, Portheothan, N. Cornwall, v.c. 1, Aug. 21 & 22, 1921.—H. S. Thompson.

? *Carex divisa* Huds. × *contigua* Hoppe. Alluvial meadow by R. Avon, south of Sea Mills, W. Glos., v.c. 34, May 19, 1921. In this meadow are *C. vulpina* (small) and *C. binervis.* A little *divisa* has been gathered a mile up stream, and *contigua* is frequent. Glumes apiculate, longer than broad, midrib bright green, glumes redder than those of *contigua* gathered same day, though the meadow plants less advanced. Lowest bract with long scabrous beak. Stem triquetrous. Leaves narrow. I hope to gather mature specimens next year.—H. S. Thompson. In the early state of these two Carices there certainly is a look of each other, except that *divisa* is darker in colour. Of course the gatherer is far more able to judge than with dried specimens; but I think if gathered in fruit these would come under *C. contigua.* I have gone carefully through the thirty specimens I have of *divisa* to see some affinity, but I cannot do so. I can find no mention of a *divisa* × *contigua.* While on *C. divisa,* I wish someone would gather examples from Northfleet and Greenhithe, W. Kent. I have specimens gathered thence by Dr. Daydon Jackson (1875) that seem to me to be the var. *ammophila* Kükenthal = *C. ammophila* Willd. Sp. Pl. IV. 226 (1805).—A. Bennett.

C. paniculata L. Oughton Head, Hitchin, Herts., v.c. 20, June & July, 1921.—J. E.Little. My original intention was to gather not the type but variant forms. Dr G. C. Druce distributed to the B.E.C. (Report for 1913, p. 507) "*C. paniculata* L. forma *compacta* [Ref. No. 9764)," from Hornsloch, Northants, a

short compact-headed form, and I sent to him a plant from Caldecote Fen, W. Norfolk, collected July 7, 1919, which he allowed as the same 'for one specimen.' Mr. C. E. Salmon wrote of it that it was 'very like *pseudo-paradoxa*.' In the same fen occurred f. *simplicior*. The present three sets exhibit similar variations; but those under 'type' do not represent the most luxuriant and long branched forms of the type, and must be regarded as *rejicienda* from the variants. Mr. Pearsall may, I fear, regard the whole selection as illegitimate. However, I send the sets for discussion.—J. E. Little. *C. paniculata* is an extremely variable sedge, and both its compact and simple elongated forms are quite frequent.—H.S.T.

C. paniculata, forma *simplicior* And. Oughton Head, Hitchin, Herts., June & July, 1921. Passed by Mr. Salmon.—J. E. Little.

C. paniculata L., var. *pseudo-paradoxa* (Gibs.) ? Oughton Head, Hitchin, Herts., v.c. 20, June 14 & 30, July 15, 1921.—J. E. Little. Mr. C. E. Salmon has kindly looked over this set, and remarks, "I think these come under *pseudo-paradoxa*, which may be nothing more than a dwarf condensed state of f. *simplicior*." In some cases the tussocks from which the set is taken were uniform, but in others the tussocks were an association in which more forms than one of *C. paniculata* were growing together, sometimes with *Carex Hudsonii*, or with *Lastrea spinulosa*, or more rarely with *Athyrium Filix-foemina*, etc. I fear it will be objected that the attempted separation of the three sets now sent is not as clear-cut as it ought to be, but with Mr. Salmon's kind assistance I have done my best.—J. E. Little.

C. contigua Hoppe. Roadside bank by R Avon, below Bristol, v.c. 34, May 19, 1921. Some specimens of this common sedge may be acceptable.—H. S. Thompson. I believe correctly named, though I have not seen a specimen named by Hoppe; but it seems the plant generally so accepted.—A. Bennett.

C. Hudsonii Ar. Benn. (*C. stricta* Good.). Oughton Head, Hitchin, Herts., v.c. 20, June 1 and July 15, 1921.—J. E. Little. The only locality given for *C. stricta* Good. in Pryor's "Flora of Herts" is "Hitchin Common! [= Oughton Head] J. Woods before 1843; Brown (C!)." I have never before detected it, but I found two tussocks this year on the right bank, and was induced thereby to search the left bank, where there are a number of tussocks scattered among scrub and *C. paniculata*. They are all

sterile, but the drought of the present year may have been a contributory cause. Mr. C. E. Salmon writes: "As to *C. stricta*: Your plants are not very like what I have seen in Norfolk, nor are they like what Evans sent me from Wicken Fen. The fruiting spikes should be stouter, and the fruits themselves arranged in beautiful symmetrical rows, 7—8—ranked. But the split-sheath and the evidence of the filamentous threads seems to put your plant under *stricta*. I am not very happy about it, and I hope you will come across some better material, with more developed spikes." Mr. Ar. Bennett writes: "*C. stricta* Good. (a name that should not be used, as there is an earlier *stricta*). A small form of the species? unless the burning has made it so. I am not surprised at Mr. Salmon's 'not happy about it.' In the state of your specimens sent it is hard to say, but the fruit is far more like *stricta* than *Goodenowii*." The herbage of both banks has been burnt to improve the pasturage. The practice has already, I think, improved several species out of existence. It is, however, satisfactory to be able to confirm this old record, and that of another plant, *Sparganium simplex* Huds., as to which I find in Pryor, "Once found near West Mill, Bentley (? error)." Robert Bentley sent a list to "The Phytologist" (1857—58), 492—499. *S. simplex* occurred this year in small quantity on the left bank at Oughton Head, about a quarter of a mile from West Mill.—J. E. Little.

C. Goodenowii Gay, f. *pseudo-trinervis* Ar. Benn. (*See* W.E.C.R., 1912, p. 411.) Small pond, Crouch Green, Knebworth, Herts., v.c. 20, June 21 & July 30, 1921.—J. E. Little. Mr. Ar. Bennett writes: "On referring to the Watson Club Report for 1912—13, p. 411 (1914), I see Herr Kükenthal refers the *C. Goodenowii* var. as nearest to '*C. vulgaris* Fr., var. *strictiformis* Bailey.' He is our best authority on the Cyperaceæ, and to differ from him is almost a verdict of 'guilty.' But in this case I hardly think he is right. Bailey described his plant in "Mem. Torrey Bot. Club," Vol I., No. 1, 25, 5 (1889). He says, 'Tall and lax (1½ to 2½ ft. high); the leaves long and narrow; staminate spike longer than in the species; the perigynia never being so densely packed and usually becoming browner. This plant stands midway between *C. vulgaris* and *C. stricta*. From the latter it is distinguished by not growing in tufts, by its narrower and smoother leaves, and by its very obtuse black or brown and white nerved short scales.' In your plant to me the leaves are too broad for Bailey's plant, but I admit I have not seen specimens lately . . . . At present I will keep my name."—A.B.

C. ornithopoda Willd. Cressbrook Dale, Derby, v.c. 57.—Coll. Jos. Sidebotham, June 1882. Comm. S. H. Biekham.

C. pendula Huds. ? form or ×. Talbot Wood, Langton Matravers, Dorset, June 19, 1921.—E. B. Bishop. I think this may be referred to the forma *minutiflora* Wansbreeker in "Oest. Bot. Zeit." 49 (1899), p. 67. Evidently poor or retarded growth in poor soil. The difference in Scotch specimens (J. B. Syme) with leaves nearly an inch wide, and five feet high, is great.—A. Bennett.

C. distans L. Upland moor, at Bigland near Haverthwaite, N. Lancs., v.c. 69 b, Aug. 1, 1921.—W. H. Pearsall. This seems to be the usual inland form of the species, though smaller than usual. My late friend, Mr. C. B. Clarke, contended that this should bear Degland's name *C. neglecta* in "Lois, Fl. Gall." Ed. 2, 298 (1807), and the maritime form he proposed (had he lived) to name in his monograph *C. vikingensis*.—A. Bennett. Evidently a mixture was sent· My specimens were obviously not *distans*: neither were Mr. Little's, nor Mr. Salmon's. One specimen on my sheet, which I considered *fulva*, Mr. White, after comparison with ample material, determines as *flava* × *fulva* (*C. xanthocarpa* Degl.). The two others he considers *C. flava*, var. *lepidocarpa* (Tausch.). Messrs. Little and Salmon consider their's *fulva*, and the latter says *in litt.*—"One example might be a cross with *fulva* as one parent (it looks almost sterile)." The forms and nomenclature of this group are indeed puzzling.—H. S. Thompson.

C. Oederi (Retz.) var. *cyperoides* Marsson, "Fl. von Neuvorpom." p. 537 (1869) (*non C. cyperoides* L. *Syst.*). Shapwick Peatmoor, Somerset, v.c. 6, July 8, 1921. Here it grows taller than described by Marsson, Husnot, Rouy, etc.—H. S. Thompson. One of the specimens sent me is probably the plant of Marsson (*i.e.* with the aggregated spikes, which is one of the marks of the variety). Marsson (*l.c.*) makes his *Oederi* a sub-sp of *flava*, and puts his *cyperoides* under *Oederi*. In the "Mem. Torr. Bot. Club," under "Types of species of the genus Carex," p. 30, Prof. Bailey mentions an American var. *viridula*, and remarks, "Its relationship to var. *cyperoides* is very close, and that variety clearly belongs to *C. flava*." On the contrary, it seems by general consent to be rightly placed under *Oederi*. And yet, strange to say, Bailey marks it as having seen a specimen named by Marsson. Asch. et Graeb. "Syn. Mitt. Flora," p. 202 (1903) seem to treat it as a "lusus glomerata Callmé Deutsche Bot.

Monats. V. 19 (1887)," while there is another var. *cyperoides* Christ, "Bull. Soc. bot. Belg." XXIV. pt. 2, 12 (1885), which they name var. *brevirostris*.—A. Bennett.

C. inflata × *vesicaria* (*C. involuta* Bab.). Hale Moss, near Altringham, Chester, v.c. 58, June, 1857.—Jos. Sidebotham. This station has been built over many years.—S. H. Bickham.

Spartina Townsendi, H. and J. Groves. Berrow Flats, N. Somerset, v.c 6, July 9 and Aug. 31, 1921. Three large clumps established on the mud, and doubtless from roots carried by the tide from the south of Clevedon (fourteen miles as the crow flies), where it was planted about 1913 to prevent coast erosion. An illustrated paper, entitled "Changes in the coast vegetation at Berrow, Somerset," will be found in "The Journal of Ecology," Vol. IX. No. 3 (1922).—H. S. Thompson.

Polypogon monspeliensis Desf. Roadside near St. Sampson's, Guernsey, Aug. 13, 1867.—C. Bailey. Comm. S. H. Bickham. (2) Damp, sandy edge of lake, Littlesea, Dorset, June 27, 1921. —E. B. Bishop.

Arundo stricta Schrad. Oakmere, Chester, v.c. 58, July 20, 1853.—Jos. Sidebotham. Comm. S. H. Bickham.

Gastridium lendigerum Gaud. Field near Langton Matravers, Dorset, June 21, 1921. Coll. C. E. Salmon.

Sesleria coerulea Ard. Near Grange Lake, Lancs., v.c. 69, 1863.—Jos. Sidebotham. Comm. S. H. Bickham. Probably gathered in Westmoreland.—S.H.B.

Koeleria britannica Domin. Kingsdown Crags, Mendip plateau, N. Somerset, v.c. 6, June 23, 1921, after a month's complete drought. Similar specimens passed by Dr. Stapf.—H. S. Thompson.

Briza minor L. Cornfield, Redcliffe, Wareham, Dorset. Coll. C. E. Wilde, June 28, 1921. Comm. E. B. Bishop. It is a pity that the habit of the grass was destroyed by the tufts being separated.—W. R. Sherrin.

Poa bulbosa L. forma *vivipara*. Shingle Beach, Barry, Glam., May, 1920.—A. E. Wade. Comm. Nat. Mus. of Wales. The viviparous form of this grass is of rare occurrence in Britain, I think.—H. W. Pugsley.

Bromus secalinus L. var. *velutinus* (Schrad.). Waste ground, Eastville, Bristol, v.c. 34, June 24, 1921.—I. M. Roper. Yes, well-marked specimens.—W. R. Sherrin.

Brachypodium pinnatum Beauv. Radwell, Herts., v.c. 20., Aug. 4, 1921.—J. E. Little. This is Coleman's record (of ?1843). "On a ditch bank at Radwell, near the river Ivel." With the form now sent, which has sometimes slightly pubescent glumes, though probably not sufficiently so for var. *pubescens* Gray, was growing also a more robust form (forma *corniculata* Hackel) of which I send two sheets for confirmation, and shall hope to obtain more another year. The leaves in the latter are broader, the culms stouter, and the spikelets longer and larger, as well as curved.—J. E. Little. A mixture—see notes with each specimen.—C.E.S.

Bromus madritensis L. On limestone rubble by the river Avon, below Bristol, v.c. 34, June 12, 1921.—H. S. Thompson. The reason why Wm. Curtis gave the name *diandrus* to this plant is explained thus in his "Flora Lond." with its excellent plate:—"If our plant" (which he observed at Bristol in 1793, "at the foot of St. Vincent's Rock") "be the *Bromus madritensis* of Linnæus, which we are induced to believe from its according so well with the figure of Barrelier, to which he refers, it will be found to be a native of Spain and Italy and perhaps other parts of Europe. There can be little doubt of its being the *muralis* of Hudson, though he has omitted to notice the peculiar circumstance of its having only two stamens, a phenomenon so unusual in plants of this tribe, that we have thought it ought to receive its trivial name from it, more especially as the plant is found to be confined to no particular country or situation." His abbreviated description runs: *Bromus diandrus* panicula erecto-patente, spiculis multifloris, flosculis diandris. In the beautifully printed "Agrostographia" of Scheuchzer (Zurich, 1719) the plate of Barrelieri (*Icon.* 76 I) is described as "optime hoc gramen repræsentat," and Scheuchzer's long Latin diagnosis is wonderfully accurate.—H.S.T.

Lastrea spinulosa Presl. ? var. *exaltata* (Lasch.) Syme. Oughton Head, Hitchin, Herts., v.c. 20, June 30, July 15, 1921.—J. E. Little. Not recorded for the Ivel basin in Pryor's "Flora of Herts." These examples appear to correspond to Miss Roper's plant from Shapwick, W.B.E.C. Rep., 1918, p. 127.—J. E. Little. True, this resembles Miss Roper's Shapwick plant of 1918, which Mr. Salmon said, "if not type, might come under *exaltata* Lasch." rather than *elevata*; but it is almost impossible to name the forms of *L. dilatata* and *spinulosa*. T. Moore in 1863 remarked upon the various transition forms, and in his "Nature Printed British Ferns," Vol. I, the admirable plate of what he then called

L. cristata var. *spinulosa* bears a very strong resemblance both to Miss Roper's and Mr. Little's examples. I consider they are *L. spinulosa* Presl. in the form it usually grows in bushy ground on the Peatmoor of central Somerset, whence the earliest specimens in my herbarium are dated 1844. The distant lower pinnae are, at least in Somerset, characteristic of this fern; but in Miss Roper's specimens the pinnae are unusually conical in outline. See useful notes in Report for 1918—20, p. 127.—H. S. Thompson.

Polypodium vulgare L. var. *serratum* Willd. Markham Bottom, Pill, N. Somerset, Dec. 10, 1921.—I. M. Roper.

Pilularia globulifera L. Fishpool, Oakmere, Delamere Forest, Cheshire, v.c. 58, Aug. 1870.—Jos. Sidebotham. Comm. S. H. Bickham. Excellent examples of this interesting plant.—H.S.T.

SUBSCRIPTIONS, 1921.

	s.	d.
Bailey, C.	14	0
Barclay, W.	14	0
Barton, W. C.	14	0
Bickham, S. H.	14	0
Bishop, E. B.	14	0
Burdon, Rev. R. J.	14	0
Carr, Prof. J. W.	14	0
Comber, J.	14	0
Cotton, Mrs.	14	0
Crosfield, A. J.	14	0
Day, Miss L.	14	0
Druce, F.	14	0
Evans, A. H.	14	0
Ewing, Mrs.	14	0
Geldart, Miss A. M.	14	0
Goode, G.	14	0
Gregor, Rev. A G.	14	0
Hadden, N. G.	14	0
Hall, L. B.	14	0
Horwood, A. R.	14	0
Hudson, Rev. J. C.	14	0
Linton, Rev. E. F.	14	0
Little, J. E.	14	0
Long, Dr. F.	14	0
Luddington, J. L.	14	0
McLean, Prof. R. C.	14	0
Pearsall, W. H.	14	0
Pugsley, H. W.	14	0
Roper, Miss I. M.	14	0
Salmon, C. E.	14	0
Simpson, N. D.	14	0
S. London Bot. Inst.	14	0
Sparling, Miss F.	14	0
Thompson, H. S.	14	0
Waller, A. R.	14	0
White, J. W.	14	0
Wilmott, A. J.	14	0
Wilson, E. A.	14	0
Wolley-Dod, Lt.-Col. A. H.	14	0
	£27	6 0

TREASURER'S BALANCE SHEET, 1921.

Receipts.

	£	s.	d.
Balance in hand, Dec. 31st, 1920	2	4	10
Subscriptions for 1921	27	6	0
	£29	10	10

Expenditure.

	£	s.	d.	£	s.	d.
Printing—						
Thirty-seventh Annual Report (150 copies), 25 pages and wrapper ...	14	18	6			
Circular	1	12	6			
Card (and postage)		10	6			
				17	1	6
Working expenses—						
Distributor	1	0	3			
Secretary: Postage of Reports ...		14	0			
				1	14	3
Club record book					6	0
Balance in hand, Dec. 31st, 1921				10	9	1
				£29	10	10

31*st December*, 1921.

G. GOODE,

Hon. Treasurer.

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F. Rilstone, Polperro, Cornwall.

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Vol. III., No. 6.

THE

THIRTY-NINTH ANNUAL REPORT

OF THE

WATSON

Botanical Exchange Club

1922—23.

Referees:

H. W. PUGSLEY, B.A., F.L.S., 81, Alexandra Road, Wimbledon, S.W. 19.

Rev. H. J. RIDDELSDELL, M.A., Bloxham, Banbury.

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CAMBRIDGE:

PRINTED BY J. PALMER, ALEXANDRA STREET

1923.

BRITISH MUSEUM
NATURAL HIST

CIRSIUM ERIOPHORUM, Scop. subsp. ANGLICUM, Petrak.

By kind permission of 'Country Life,' Ltd.] [*Phot. H. S. Thompson.*

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1923.

THE WATSON
Botanical Exchange Club

REPORT FOR 1922—23.

List of Contributors.

	Sheets.		Sheets.
W. C. Barton ...	... 331	F. Rilstone ...	... 72
S. H. Biekham ...	... 25	Miss I. M. Roper	... 166
Preb. R. J. Burdon	... 46	C. E. Salmon ...	... 30
A. J. Crosfield ...	... 21	H. S. Thompson	... 607
Dr. H. Downes...	... 165	J. W. White ...	... 175
L. B. Hall ...	... 57	Nat. Mus. of Wales	... 76
J. E. Little ...	... 832	S. Lond. Bot. Inst.	... 49
St. J. Marriott ...	... 33		
W. H. Pearsall...	... 50	Total ...	...2735

The gross number of sheets dealt with this year, reckoning in speeial eontributions for individual members and publie herbaria, exeeeded that of last year by 1107, and was approximately equal to the number in 1913. Although no desiderata list was issued, the study of eritieal genera has been well kept in mind by members, though not altogether those genera that have been prominent in former years. The past season proved extremely good for the fruiting of most British trees, and they are very much better represented than usual. In drying branches as large as possible a weight of from 100 to 150 lbs. is not too mueh, and the pressure may with advantage be distributed by the interposition of eorrugated sheets, or of liberal wads of old newspaper frequently ehanged to obviate the danger of mould. If leaves crumple in drying it is a sign that the pressure has not been properly distributed.

In addition to those sent to eontributing members, and to the referees, pareels were sent to Kew, the British Museum, Oxford, Cambridge, Dublin, Nat. Mus. of Wales, Bergen, and Stoekholm. Miss Chambers, Headmistress of the Girls' Grammar Sehool, Hitehin, again kindly lent a room for the distribution, and I have to

acknowledge with many thanks help received from Messrs. S. R. Bowden, A. W. Dawson, M.A., H. C. Littlebury, and R. Morse.

Our best acknowledgements are due to the referees, and for notes received from Messrs. E. G. Baker, W. Barclay, Ar. Bennett, and J. Fraser, Mrs. Gregory, Messrs. Jas. Groves, C. C. Lacaita, and A. B. Jackson, Rev. E. F. Linton, Messrs. W. H. Pearsall and H. W. Pugsley, Dr. G. C. Druce, Rev. H. J. Riddelsdell, Messrs. C. E. Salmon, H. S. Thompson, and J. W. White, and Lt.-Col. A. H. Wolley-Dod.

Col. Wolley-Dod appeals for more help with *Rosæ*. Will members try to supply him with plenty of good material next season? Mr. Ar. Bennett writes: "We want any form of '*Potamogeton pusillus* L.' gathered, in order to see how far we possess *P. panormitanus* Bivona-Bernardi." Mr. A. J. Wilmott will be glad to receive for the Hb. Brit. Mus. ripe seeds and fruits chiefly (1) of plants which do not flower and fruit together, so that ripe seed does not occur on a herbarium sheet, (2) of local forms. Mr. W. C. Barton will be glad of more *Carpinus* material.

Will members bear in mind that we need a few new recruits to fill gaps, and that *contributing* members would especially be welcomed? A little assistance in this direction would make the secretary's work less arduous.

J. E. LITTLE, M.A.,
Distributor.

The Club is greatly indebted to Mr. Little for the care and efficiency shown in the distribution, which entailed more than one visit to London, and for adding from his own herbarium many specimens to the large number gathered last year and distributed by him. He has also been chiefly responsible for the editorship of the Report this year.

Next spring we hope to re-issue a Desiderata List if funds permit, for some such guide would be helpful, especially to the more recent members.

In February Dr. John Briquet, Director of the Conservatoire et Jardin botaniques de Genève, very kindly sent me for distribution 306 sheets of continental duplicates, chiefly collected (c. 1855) by E. and A. Huet du Pavillon in Sicily, Switzerland, the Jura and Pyrenees. Many of these were so liberally supplied that I was able to distribute about 550 fairly adequate examples among twenty-five members who desired to participate in them. At the same time Mr. Lacaita kindly sent fifty sheets

of rare plants from southern Italy, mostly collected by Dr. O. Gavioli in a district in Lucania where no one else is known to have collected. To these I had the pleasure of adding some of the duplicates of the late Cedric Bucknall.

Dr. Briquet expressed a wish to buy a set of our Reports for the library in his charge, and as many as possible were gladly given to him. And Mr. White and I showed our appreciation of Monsieur Briquet's kind gift by posting him two large parcels of British plants, which are poorly represented at Geneva, as is the case in most continental herbaria.

The 400 sheets of Scandinavian plants (largely grasses) sent in exchange by Dr. Lindman, of Stockholm, a promised parcel from Mr. Holmboe, of Bergen, and some British and European specimens given to Mr. Little by the Rev. F. A. Rogers, will be dealt with next winter. Meanwhile a selection from the Stockholm parcel has been made by Mr. Wilmott for the Herb. Brit. Mus.; and while the collection was there other subscribers in the London area had the opportunity of seeing it, and of taking some sheets.

It is with deep regret we hear, on going to press, that Mr. Wm. Barclay died at Perth on May 10th.

H. S. THOMPSON,
Hon. Sec.

Cirsium eriophorum Scop. Sub-sp. *anglicum* Petrak. A wish having been expressed that a photograph of this handsome thistle, which Dr. Petrak, of Mähr-Weisskirchen, Czecho-Slovakia, has named sub-sp. *anglicum*, might appear in the Report, we are indebted to the Editor of "The Garden" for the loan of a block. The photograph appeared in that journal on Oct. 28, 1922. A different one was published in "Gard. Chron." Oct. 14, 1922.

After examination of ample dried specimens sent last September to Dr. Petrak for his *Cirsiotheca*, he was satisfied that the English plant is "certainly different from the forms found on the continent; a good race, and easily distinguishable by the structure of the scales of the involucre and the size and shape of the flower-heads." His monograph on the genus *Cirsium* was delayed by the war, and is not yet published.

The photographs were taken on August 21, and the plants collected from a steep slope of rough pasture resting on Lower Lias, above the Chew Valley, between Bristol and Bath, where the plant is very abundant. Some of the largest of the handsome

root leaves were three feet in length. The Woolly-headed Thistle is frequent in Somerset, especially on Lias and Oolite. Indeed the first British record, of Lobelius in 1570, spoke of it as *Frequens haec in Angliæ collibus strigosis agri Sommerseti.* It is very rare in West Gloucestershire, but appears in most of the English counties from Durham to Somerset and Kent.

Dr. Petrak, who is also desirous of sets of *Menthae* from Britain (in exchange), particularly wants specimens of the hybrid *Cirsium britannicum* × *palustre* (*Cnicus palustris* Willd. × *pratensis* of the *Lond. Cat.*); and says that it can be recognised by the *partial* decurrence of the leaves, and by the larger heads than in *palustris,* but smaller than in *britannicum.*—H. S. Thompson.

ADDITIONAL NOTES

Report 1917, p. 72. *Polygonum* [*aviculare* L. ? Subsp. *Roberti* Loisel, non auct. angl.], Bristol, Oct. 1917. Coll. H. S. Thompson. "This is *P. cognatum* Meisn. (*a*) *alpestre* C. A. Meyer."—C.E.S.

Report 1921—22, p. 169. *Rubus durescens* (Nos. 559 & 560) read *R. calvatus* Blox.—H.J.R. p. 170. Mr. Barton's No. 548 (*Rubus rhombifolius*) should, as we now agree, be put to *R. argenteus* Wh. & N. Will members please correct?—H.J.R.

Report 1921—22, p. 177. *Symphytum officinale* × *peregrinum.* Coll. J. E. Little. "I do not doubt that our late friend Bucknall would have passed it as his *discolor.*"—J.W.W. [*i.e.* as one of the forms of *S. officinale* × *peregrinum.*]

Report 1921—22, p. 180. *Mercurialis ambigua* L. fil. Coll. R. J. Burdon. On July 12, 1922, I visited with Preb. Burdon the locality from which the specimens of 1921 were taken. Examining the plants on the spot, we again found female plants with staminate flowers. One flower, dissected when we returned, was beyond doubt hermaphrodite. But the proportion of male flowers on the female plants is evidently very small, and in dried specimens they may easily be overlooked. At Wells, W. Norfolk, in 1922, I found almost immediately two female plants bearing staminate flowers, and then after prolonged search could find no more. Syme notes that Borrer and others were of opinion that the form was not constant.—J.E.L.

ALFRED RAYNEY WALLER, M.A.

By the death, on July 19th, 1922, of Mr. A. R. Waller the Club lost its first Secretary, and Cambridge its valued Secretary to the Syndics of the University Press. A. R. Waller was born at York in 1867, and when the writer was a boy at Bootham School he often met Waller in Wm. Sessions' book-shop, and was encouraged in 1887 to join the "Watson" Club, which was formed in December 1884, with Arthur Bennett as Referee P. F. Lee as Treasurer, and A. R. Waller as Hon. Secretary.

Until 1898 these Reports were printed at the late W. Sessions' establishment in York, where A. R. W. had been manager. In the early days he was particularly interested in *Carex*, doubtless encouraged by Mr. Bennett. It appears that in the first year "2250 specimens were contributed by twenty-five members," and apparently Waller had distributed them, after Mr. A. Bennett had "looked through between one and two hundred doubtful plants."

Soon Waller went to London, and became engaged in literary work. In 1902 his connection with Cambridge began, and until 1911, when he became Secretary, he acted as Assistant Secretary at the University Press. "Thus for twenty years his wide knowledge of books . . . his unceasing energy, his shrewd judgment, and his great financial ability had been devoted with absolute unselfishness to the service of the University."—*Cambridge Independent Press.*

Just as he had helped younger botanists in his early days, so, as a life-long student of English Literature, he was ever ready to put his knowledge at the command of young authors and other students. He became an M.A. of the University in 1905, and a member of Peterhouse, with whose Master, Sir A. W. Ward, he collaborated in the great "Cambridge History of English Literature," which is perhaps the chief of the many editions which bear his name, and are a record of his English scholarship.

It is not surprising that Mr. Waller early forsook plant-collecting for literature; but meeting him one day in 1911, at the Cambridge Union, we talked over old times, and he re-joined the Watson Club next year. He leaves a widow, and was buried at Cherryhinton.

H. S. T.

CANON J. VAUGHAN.

On July 10th, 1922, there passed away at his house in the Close at Winchester a former member of and contributor to the Watson Club—Canon John Vaughan, known and beloved by a wide circle as a faithful minister, a cultured writer, a scholarly antiquary, and an enthusiastic lover of natural history. With other aspects of his personality and influence our limited space forbids any attempt to deal, but a few lines may well be spared to recall the pleasure he afforded to others by his charming botanical articles, enriched by wide reading and apt quotation, in various periodicals, some of which were collected and published in book form, as "The Wild Flowers of Selborne" and "The Music of Wild Flowers." Mr. Thompson's distribution this year of the sea pea brings to mind one such in "Lighter Studies of a Country Rector." The writer only made personal acquaintance with him on July 7th in the water meadows near St. Cross, whence was pointed out to him on the hills a former habitat of *Herminium*. We then walked across 'meads' to look at a plant in college. Next day but one, being 'in residence,' the Canon preached at the cathedral on kindness to the dumb creation, and then, while engaged in the mid-day celebration of Holy Communion, collapsed and was taken home, to die in the early morning of Monday. Wild flowers were his delight, and with wild flowers brought in response to his desire by friends from far and near he was accompanied to his resting place under the cathedral that he loved.

——— J. E. L.

Myosurus minimus L. Old Drove Road, West Sedgemoor, Curry Rivel, Somerset, v.c. 5, June, 1922.—H. Downes.

Ranunculus pseudo-fluitans Baker & Foggitt var. *minor*, Pearsall. Spring at Cadwell Farm, Beds., v.c. 30, det. W. H. Pearsall, June 27, 1922.—J. E. Little. I should refer this to *R. pseudo-fluitans*. I do not know the var. *minor*, but have seen much smaller specimens.—J.G.

R. acris L., var. *Steveni* Andrz. Caleb's Farm near Winterbourne, W. Glos.. June 14, 1907. Legit C. Bucknall. During a long-continued study of the forms of *R. acris* growing in the Bristol district these examples were put aside by the late Mr. Bucknall as agreeing best with var. *Steveni*. They were all gathered in the same fields on the same day, but it is noted on the drying tickets that some lean a little towards *tomophyllus* and others towards *Borœanus*.—Jas. W. White.

R. Ficaria L., var. *incumbens* Bab. Coppice, Ashton Park, N. Somerset, April 3, 1922. Rather poor examples of a variation that appears to be rare in an extreme form. Dried specimens are too flaccid for handling unless pasted down.—Jas. W. White. I should put this under type: only one leaf on my specimen has the lobes slightly overlapping.—G.C.D. It may be so when alive, but the leaves (in my example) in the discomfort of being pressed have spread out their lobes and become var. *divergens*. —C.E.S.

Pæonia corallina Retz. Origin, Steep Holm Island; cult., Ledbury, May 22, 1922. In 1919 I distributed as *Pæonia corallina* specimens which had been gathered from the wrong plant and were *P. peregrina*. I now send specimens collected from the right plant, fide Mr. J. W. White.—S. H. Bickham.

Capnoides cava Moench. (= *Corydalis tuberosa* DC.). Wood, Stone Easton, N. Somerset, v.c. 6, May 19, 1922. Thoroughly naturalised.—Ida M. Roper. Yes.—C.C.L. The valid name for this plant is, I think, *Corydalis cava* Schweigg & Koert.—H.W.P.

Fumaria capreolata L. Climbing among rambler roses, Lambourne, W. Cornwall, Nov. 1922.—F. Rilstone. Yes, presumably my variety *Babingtonii*, with poor flowers owing to the late date when collected.—H.W.P.

F. ———. Potato ground, Lambourne, W. Cornwall, Nov. 1922.—F. Rilstone. This is a remarkable Fumitory, distinct from anything that I have hitherto seen. It evidently belongs to the Agrarian subsection, but it differs from *F. occidentalis* through the absence of dark purple colouring about the apex of the upper petal, and in the fruit being rounded obtuse and not beaked. It has the aspect of a good species, for it produces perfect fruit, but I learn from Mr. Rilstone that all the sheets sent to the Club came from a single large plant, and that at present he can only find *F. occidentalis* in the spot where it occurred. It therefore seems likely that the plant collected was a hybrid—a cross of *F. occidentalis* probably with *F. capreolata* or possibly with *F. Bastardii*—in spite of its apparent fertility, and it is desirable that further material should be obtained, if possible, in order to determine its real status.—H.W.P.

F. occidentalis Pugsley. (**1**) Garden weed, Lambourne, W. Cornwall, Sept. 1922.—F. Rilstone. Yes.—H.W.P. (**2**) Potato ground, Lambourne, W. Cornwall, Nov. 1922.—F. Rilstone. Yes, but with depauperate flowers, as might be expected in November.—H.W.P.

F. Borœi Jord. ? West Porlock, Somerset, v.c. 5, July, 1922.—H. S. Thompson. Correct.—H.W.P.

F. Martinii Clavand (*F. paradoxa* Pugsley). Potato field between Combe Down and Claverton, Bath, Oct. 11, 1920.—C. Bucknall. Comm. J. W. White. Correctly named, but not at all typical, partly through being gathered so late. The fruit is much broader than usual, and the attached envelope includes fruits of *F. officinalis* L.—H.W.P.

Draba muralis Linn. Combe Beacon, near Chard, Somerset, v.c. 5, May, 1922.—H. Downes.

Lepidium ruderale L. Waste ground by river Avon, Ashton Gate, N. Somerset, v.c. 6, June 5, 1922.—H. S. Thompson.

Thlaspi alpestre, L. *sensu latiore.* Broken ground below Shipham, N. Somerset, v.c. 6, April 15 and June 1, 1922.—H. S. Thompson.

Reseda suffruticulosa L. Waste ground, Portishead, N. Somerset, v.c. 6, Aug. 3, 1922. A few *R. alba* L. with six sepals and petals were also present.—Ida M. Roper.

Viola Riviniana Reichb., forma. Highwood, Patchway, W. Glos., v.c. 34, May 2 and June 23, 1922. Mrs. Gregory, on seeing fresh specimens of the first gathering, wrote: "I take this violet to be another of the puzzling links between *V. rupestris* and *V. Riviniana.* The stipules are not only broader, but the teeth are of a different character from those of *V. Riviniana*, not *cilia* so much as *processes.*"—Ida M. Roper.

V. Riviniana × *rupestris.* Det. E. S. Gregory. Near Dye's Farm, Langley, Hitchin, Herts., v.c. 20, Mar. 21 and 29, 1921.—J. E. Little. I have gone through the enclosed violets, plant by plant, and have formed the conclusion that the greater part of them have affinity with *V. rupestris*, but that none are free from *Riviniana* characters.—E. S. Gregory. I learn from Mr. Little that he has never seen *V. rupestris* in Herts., and I believe these specimens to be simply a small form of *V. Riviniana* with rather broad leaves and stipules. *V. rupestris* Schmidt (*V. arenaria* DC.) is a perfectly distinct species, which I have collected several times in the Swiss Alps. The plant discovered many years ago in Teesdale by Backhouse undoubtedly belongs to this species, and I found it in 1903 in what was probably Backhouse's original station. It was growing in small quantity, but producing freely from cleistogamous flowers its characteristic pubescent and velvety fruits. In that year the late A. O. Hume was in Teesdale, and

had gathered in very large quantity, as *V. rupestris*, the small heathland form of *V. Riviniana* which is so prevalent in that district; and I suspect that this latter plant has recently been mistaken for *V. rupestris* in other localities.—H.W.P.

Silene dubia Herbich. Orig Jersey, seeds from C. E. Salmon. Garden, Winchmore Hill, June 11, 1922.—Leslie B. Hall. I am unable to distinguish this from ordinary *S. nutans*; but have no real Transylvanians to compare. I do not trust Rouy.—C. C. Lacaita.

Lychnis dioica L. ♂, f. *alba*. Wood, Spaniorum Hill, Hallen, W. Glos., v.c. 34, May 15, 1922.—Ida M. Roper.

Cerastium semidecandrum L. Limestone slope, Winterhead, N. Somerset, v.c. 6, May 15, 1922. To complete series of critical lowland *Cerastia* from the Bristol district.—H. S. Thompson. Yes; *almost* glandular enough to come under var. *glandulosum* Koch.—C.E.S.

C. vulgatum L. forma. Damp rock in shade, below Leigh Woods, N. Somerset, v.c. 6, May 25 & Aug. 11, 1922. The same station whence came the younger plants (May 1920) of which Mr. Pearsall said, "Fls. too small for the var. *holosteoides*." —H. S. Thompson. This delicate state cannot be named var. *holosteoides* I believe, but it makes some approach to that by its sparser hairs and the stem pubescence ± confined to lines.—C.E.S. This plant is much smaller and slenderer than the riverside form of north Britain usually referred to var. *holosteoides* Wahl., but it differs conspicuously from the common form of the species by its more or less glabrescent foliage and the paucity of hairs on the stem, these being mostly restricted to a single line as far upwards as the leaves extend. With these characters I think it may well be regarded as a small form of var. *holosteoides*.—H.W.P.

Moenchia erecta Gaertn. On Pennant Sandstone, near Keynsham, N. Somerset, v.c. 6, May 28, 1922. Rare in Somerset.—H. S. Thompson.

Stellaria media Vill., var. *major* Koch. Selham, Sussex, May 18, 1922.—R. J. Burdon. *S. media*, var. *major* Koch is to my mind a pure synonym of *S. neglecta* Weihe. In flower only, but these look right for *S. neglecta*. The plant was reported from this neighbourhood by Marshall (Journ. Bot. 1902, p. 214).—C.E.S. This is *S. neglecta* Weihe.—H.W.P.

S. neglecta Weihe. (1) Woods near Porlock, Somerset, v.c. 5, June 25, 1922.—L. B. Hall. May be so, but such scraps are

useless.—A.B. (**2**) Hedge banks near Brislington, N. Somerset, v.e. 6, May 28, 1922. Growing with the quite glabrous form called var. *umbrosa* (Opiz).—H. S. Thompson. I believe correctly named.—C.E.S.

S. neglecta Weihe, var. *umbrosa* (Opiz). (**1**) Near Brislington, N. Somerset, May 28, 1922. Calyx and pedicels shortly hirsute, immature seeds bluntly tubercled.—H. S. Thompson. Excellent *umbrosa* in good fruit.—C.E.S. Yes.—A.B. (**2**) Roadside bank, Sidcot, N. Somerset, May 15, 1922.—H. S. Thompson. This is *umbrosa*; calyx finely tubercled as is often the case in this plant.—C.E.S. (**3**) Woods near Porlock, Somerset, v.c. 5, June 25, 1922.—L. B. Hall.

Arenaria serpyllifolia L., var. *viscidula* Roth. Roadside, Knowle Hill, near Winsley, Wilts, June 3, 1922.—H. S. Thompson. Roth's plant, but the few glandular hairs found on the specimens sent me will not, I consider, bring them under Koch's *glutinosa*. I should have thought Mr. Thompson's plants would come under *scabra* Fenzl., *i.e.* the usual state in Britain.—C.E.S.

Sagina ciliata Fr. (**1**) The Rough, near Coates, W. Sussex, v.c. 13, July 13, 1922.—J. E. Little. Yes; *S. ciliata* Fr. = *S. ambigua* Lloyd.—C.E.S. Yes.—W.H.P. (**2**) Wolferton, W. Norfolk, v.c. 28, Aug. 23, 1922.—J. E. Little. Yes.—W.H.P.

Spergularia campestris (Kindb.) Willk. & Lge. Par Harbour, Cornwall, July 1921.—W. R. Sherrin. The specimen sent is very fragmentary, but there is sufficient seed to show that it is *S. salina* Presl.—H.W.P.

Malva moschata L. in great variety of form and colour. Copley Wood, near Butleigh, Somerset, v.c. 6, Aug. 2, 1922. About the old Woodman's cottage, one of the classic sites for *Althæa hirsuta*. This wood should never have been called (by J. G. Baker) "Butleigh Wood," which is strictly a smaller enclosure nearer Street and Butleigh.—H. S. Thompson.

Tilia platyphyllos Scop. (*T. grandifolia* Ehrh.). Fruiting in cultivation at Stoke Bishop, Bristol, Sept. 1, 1922.—J. W. White. Thinly hairy below, but rightly named. Planted trees in Surrey are often densely pubescent on both sides of the leaves, and the species sows itself in plantations.—J.F. Yes, the typical form. This species varies a good deal in degree of hairiness, and Schneider has divided it into five sub-species, which do not appear, however, to be very well defined. The most pubescent forms are said to occur in northern Germany, France, and Scan-

dinavia, while nearly glabrous forms are found in southern France. In England one occasionally finds trees with almost glabrous foliage. The fruits are not invariably ribbed, and at Kew and elsewhere I have seen trees of undoubted *T. platyphyllos* bearing fruit without ribs, and in some specimens the ribs are more prominent than in others —A.B.J.

Geranium nodosum L. Bank of lane near Luccombe, W. Somerset, v.c. 5, July 11, 1922. Known there for thirty-five years by H. S. Thompson. Yes.—C.C.L.

Erodium pimpinellifolium Cav. ? Cult. ground, Abbey Wood, W. Kent, v.c. 16, July 1922.—St. J. Marriott.

E. cicutarium L'Hérit. [2848]. Dense prostrate var. or form. Penpole Point, Avonmouth, W. Glos., v.c. 34, May 1922. Flowers deep rose; fruits slender, purple-green; stems short. Dense prostrate mats.—H. S. Thompson.

E. neglectum Baker & Salmon. Christchurch, Hants., v.c. 11, June, 1922.—W. R. Sherrin.

E. moschatum L'Hérit. (**1**) Sea wall, Rumney, Mon., v.c. 35, June, 1922.—A. E. Wade. Comm. Nat. Mus. of Wales. (**2**) [2850] Penpole Point, Avonmouth, v.c. 34, May 11, 1922. Long peduncles. Probably the type.—H. S. Thompson. Yes.—C.C.L. (**3**) [2851] Penpole Point, Avonmouth, v.c. 34, May 2, 1922. Dwarf but robust form (not var. *minor*).—H. S. Thompson.

E. moschatum L'Hérit., var. *minor* Rouy et Foue. [2852]. Penpole Point, Avonmouth, v.c. 34, May, 1922.—H. S. Thompson.

Impatiens glandulifera Royle [590]. River banks above Maentwrog, Merioneth, v.c. 48, Sept. 7, 1922.—W. C. Barton.

Rhamnus Frangula L. Street Heath, Sharpham, N. Somerset, v.c. 6, July 26, 1922. Fruit unusually abundant this year.—Ida M. Roper. Rather rare in Somerset.—H.S.T.

Acer campestre L., var. *leiocarpon* Wallr. (Fruits). Grove Mill, Hitchin, Herts., v.c. 20, Dec. 7, 1922.—J. E. Little. I agree, occurs occasionally in Surrey and Berks.—J.F.

Genista pilosa Linn. Lizard Downs, Cornwall, v.c. 1, June, 1922.—H. Downes.

Trigonella ornithopodioides DC. Sea wall, Rumney, Mon., v.c. 35, June, 1922.—A. E. Wade. Comm. Nat. Mus. of Wales.

Medicago denticulata Willd. La Favorita, Palermo, Sieily, April 26, 1906. Coll. C. Bueknall and J. W. White. These speeimens, gathered in Sieily by the late Mr. Bueknall, are sent with the thought that some members may like to eompare them with the plant found in Britain.—J.W.W.

M. minima (L.) Bart. Waste ground, Barry Doek, Glam., July, 1922.—A. E. Wade. Comm. Nat. Mus. of Wales.

Melilotus alba Desr. G.N.R., above engine sheds, Hitehin, Herts., Sept. 17, 1922.—J. E. Little.

Trifolium incarnatum Linn., var. *album*. Cultivated at Ilminster, v.e. 5, July, 1922. Appears to be identical with *T. Molinerii* Balb.—H. Downes. I agree with Dr. Downes that there is nothing really to distinguish *T. incarnatum*, var. *album* from *T. Molinerii*; and that appears to be the opinion of eertain authors on the continent.—H.S.T.

T. Molinerii Balb. Lizard Point, Cornwall, v.e. 1, June, 1922.—H. Downes.

Anthyllis Vulneraria L., var. *tricolor* Rouy et Foue. First record for British Isles? Limestone slope near Shipham, in some quantity at edge of mowing grass, N. Somerset, v.c. 6, June 15, 1922. Calyx nearly white, teeth purple, with long silky hairs like the leaves. 3—5 pairs of narrow leaflets. Flowers from yellow to deep orange red. The six speeimens gathered are 2—3 dems. high. Much more silky than Barton's No. 370, Newquay, 1919, and less branehed.—H. S. Thompson.

Ornithopus pinnatus Druee. Scilly Isles, June, 1922.—H. Downes.

Vicia sativa L., var. *macrocarpa* Moris. Waste ground by allotments, near Horfield, Bristol, v.c. 34, Oct. 27, 1922, with Mr. Gibbons, the finder. Fls. 2·5—3 cm. Ripe pod 53 × 9 mm. Seeds large, mottled. Stem robust, almost winged, over 6 feet long. 6—7 pairs of very large leaflets,—40 × 15 mm., ±, emarginate, with short mucro. More robust than I have ever seen this in S. of France.—H. S. Thompson. Yes.—C.C.L.

V. augustifolia (L.) Reiehardt [2645]. Formerly these would have been plaeed under the unsatisfactory var. *Bobartii* (Forst.) Koch. Sandy ground between Keynsham and Brislington, May 28, 1922. See pregnant note by D. Fry in White's "Fl. of Bristol," p. 25. I have just such a "puzzling series" from this, the very spot referred to by Mr. Fry.—H. S. Thompson.

V. bithynica L. Bank above Publow, N. Somerset, June 11, 1922. See Journ. Bot. 1922, p. 209, as to its flowering.—H. S. Thompson.

Lathyrus maritimus Bigel. Chesil Bank, Dorset, Aug. 26, 1922. The dominant plant there over a large area.—H. S. Thompson.

Prunus domestica × *insititia*. Lane, Purwell, Hitchin, Herts., July 25 & Oct. 10, 1922. At the time of flowering there was pubescence on the peduncle; on one or two this was still traceable in July.—J. E. Little. The twin peduncles, more or less pubescent, the dense pubescence along the midrib of the underside of the leaves, and the serratures of the latter point to *P. insititia*. The size of the leaves and the oval fruits are those of *P. domestica*. —J.F.

Rubus fissus Lindl. [581]. Festiniog valley, Merioneth, v.c. 48, Sept. 13, 1918.—W. C. Barton. Quite typical; gathered here by Lees in 1848 (Hb. Babington).—H.J.R.

R. Rogersii Linton [621]. Denham Golf Links, Bucks., v.c. 24, June 21, 1922.—W. C. Barton. Yes, and very close to *R. ammobius* Focke (large leaves, less prickly panicle, etc). But to establish *ammobius* the living flowers must be seen. Focke now puts *ammobius* in a subordinate position to *Rogersii* (which is already known from Bucks.).—H.J.R.

R. opacus Focke [553]. Abrook Common, Surrey, v.c. 17, July 11, 1922.—W. C. Barton and H. J. Riddelsdell. Pink flowered form. Both Sudre and Focke think *opacus* Focke is nearer to *plicatus* than to *nitidus*. But Sudre thinks most of our English *opacus* merely a form under *nitidus*: whereas Focke (who saw it growing) identifies the English and German *opacus*. Focke thinks it a cross between *plicatus* and *affinis* (though it often grows where they are not), and puts it with *ammobius* under *Rogersii*.—H.J.R.

R dumnoniensis Bab. [583]. Borth y Gest, Portmadoc, Carnarvon, v.c. 49, Sept. 1, 1922.—W. C. Barton and H. J. Riddelsdell. Yes; Sudre's arrangement of *dumnoniensis* under *pyramidalis* Kalt. as a subordinate form is interesting (in view of the rather hairy stem), though not convincing in view of its general characters. Sudre seems much disposed to make his arrangement depend too much on leaf character.—H.J.R.

R. ramosus Briggs [547]. Littleworth Common, Surrey, v.c. 17, July 11, 1922.—W. C. Barton and H. J. Riddesdell. Yes;

large quantity of fine bushes, and very constant. Sudre identifies it with *R. clethrophilus* Génév.; Focke separates the two widely. —H.J.R.

R. Godroni Lec. & Lam. var. *robustus* (P. J. M.) [561]. Putney Heath, Surrey, v.c. 17, July 10, 1922.—W. C. Barton and H. J. Riddelsdell. Yes, I think decidedly *robustus*.—H.J.R.

R. Colemanni Blox. [534]. Wimbledon Common, Surrey, v.c. 17, July 10, 1922.—W. C. Barton and H. J. Riddelsdell. Right. —H.J.R.

R. leucostachys Sm. var. *macrothyrsus* Lange [584]. Portmadoc, Carnarvon, v.c. 49, Sept. 6, 1922.—W. C. Barton. Yes; it occurs in great abundance about Portmadoc, both in v.c. 48 & 49. Its massed panicles of large brilliant flowers festooning the lower slopes of cliffs, or the banks, make a remarkable sight.—H.J.R.

R. leucanthemus ? P. J. M. [570]. Oxshott Common, Surrey, v.c. 17. Petals white; stamens equal, outer > styles, seps. loosely reflexed, tip rising. July 11, 1922.—W. C. Barton and H. J. Riddelsdell. This is the Surrey plant so named (with the query) by Rogers; it is widespread in the county. There is doubt as to its identity. Focke (1914) says that Mueller described *leucanthemus* from a single bush of *R. vestitus* (the name Focke prefers to *R. leucostachys*) observed near Weissenburg. Sudre simply differentiates it from *leucostachys* by its white flowers and less imperfect pollen, and by its being found on calcareous (as well as siliceous) soils. If that is so, our plant is not *leucanthemus* Muell.; it is as distinct from *leucostachys* as *macrothyrsus* is. We may have either to place it elsewhere or give it a new name.—H.J.R.

R. lasioclados Focke [562], var. *angustifolius* Rogers. Putney Heath, Surrey, v.c. 17, July 12, 1922.—W. C. Barton and H. J. Riddelsdell. Yes, under *angustifolius*, though the foliage is not quite typical.

R. oigoclados Rogers, var. *Newbouldii* Rogers [597]. Hedgerow near Morfa Buchan Road, Portmadoc, Carnarvon, v.c. 49, Sept. 5, 1922. Pets. white, sta. > styles.—W. C. Barton. Very good material, with foliage grey beneath. First record for N. Wales—for all Wales, indeed, except Glam. and Brecon.— H.J.R.

R. melanodermis Focke [539]. Wimbledon Common, Surrey, v.c. 17, July 10, 1922.—W. C. Barton and H. J. Riddelsdell. This is certainly the correct name, though we at first (1921) took the bush for *Bloxamii*. New for Surrey.—H.J.R.

R. pallidus Wh. & N., var. *leptopetalus* Rogers [572]. Roadside, site of Queens Wood, Bexley Road, W. Kent, v.c. 16, July 13, 1222.—W. C. Barton and H. J. Riddelsdell. Yes; panicles small, but very characteristic, especially in the cream-coloured narrow petals. Well spread over this area of Kent, reaching to Plumstead. Neither Focke nor Sudre mentions this variety.—H.J.R.

R. longithyrsiger Bab. [573]. Crown Wood, Shooters Hill, W. Kent, v.c. 16, July 13, 1922.—W. C. Barton and H. J. Riddelsdell. Right—in Wolley-Dod's locality.—H.J.R.

R. rosaceus Wh. & N., subsp. *adornatus* P.J.M. [540] Wimbledon Common, Surrey, v.c. 17, July 10, 1922.—W. C. Barton and H. J. Riddelsdell. Yes; known a long time on Wimbledon Common. Our *adornatus* is (fide Rogers and Focke) exactly like the German *adornatus* in paniele, but differs slightly in foliage and prickles. Focke saw the living bushes in Herefordshire. It is remarkable therefore that he does not accept the plant as English in his 1914 monograph; no reference appears to our plant under *adornatus* or any other name (apparently). Sudre places our plant under *R. hystrix* but at some distance from *adornatus* Muell (as *R. Murrayi* Sudre). But evidence is still required, in face of Focke's treatment of the form when in England in 1894, to show that it is separable from *R. adornatus* Muell.—H.J.R.

R. plinthostylus Génév. Lambourne, W. Cornwall, July 1, 1922.—F. Rilstone. Quite right—the average Cornish plant so named by Rogers.—H.J.R.

R. hirtus W. & K., subsp. *rubiginosus* (P.J.M.) [530]. Wimbledon Common, Surrey, v.c. 17, July 10, 1922.—W. C. Barton and H. J. Riddelsdell. Yes, I certainly think so. It was new as a Surrey record in 1921 when we first found it on Wimbledon Common.—H.J.R.

Alchemilla vulgaris L., var. *filicaulis* (Buser)? Grassy slope among bracken, near Shipham, N. Somerset, v.c. 6, June 15, 1922. Fls. yellowish.—H. S. Thompson. *A. minor* Huds. in my opinion. This is a more western type than the closely-related *A. filicaulis* Buser, from which it differs by its pubescent peduncles and inflorescence branches.—Jens Holmboe. *A. minor* Huds.—C.E.S. E. S. Marshall in "Suppl. Fl. Som." gives *A. minor* Huds. synonymous with *A. filicaulis* Buser, subsp. *vestita* Buser, and says, "Apparently the usual, if not the only Somerset plant;

but *A. pratensis* Sehmidt may also oeeur." He quotes "Hill pastures above Cheddar Wood, C. E. Moss," praetieally the same locality.—H.S.T.

Rosa [*lutetiana* Lév., var. *andegavensis* (Bast.)] [2348]. By the Avon, Ham Green, Pill, N. Somerset, v.c. 6, June 30 & Sept. 27, 1922. The bush bore very poor fruit, a great contrast to other forms of *R. canina* in the same hedge.—Ida M. Roper. This is a hairy-leaved rose, and therefore cannot belong to the *lutetianæ*. It is fairly typical *R. stylosa*, var. *systyla* Baker (*R. systyla* Bast.). —A.H.W.-D. This is not a form of *R. lutetiana* Lem. as the leaves are more or less hairy below, chiefly on the midrib. If a *canina* form it eomes under *R. dumetorum* Thuill., var. *Déséglisei* Bor. Better speeimens showing mature prickles, however, might show it to be a form *R. stylosa* Desv. of whieh it has the narrow braets and glabrous staged styles. The same observation applies to the speeimen from the same collector named *R. lutetiana*, var. *andegavensis* Bast., f. *surculosa* Woods, which is very similar, but larger leaved.—W.B. (Later) This is *systyla* all right, but it must be quite different from the sheet I saw before, as it is not at all 'fairly typical.' The peduneles are much too short and mostly solitary, and the fruit and leaflets smaller than in type.— A.H.W.-D.

R. [*lutetiana* Lév., var. *andegavensis* (Bast.), f. *surculosa* (Woods)]. Gang Wall, Yatton, N. Somerset, v.c. 6, Aug. 15, 1922.—Ida M. Roper. The same remarks apply as to the Pill speeimen. This is also fairly typical *systyla*.—A.H.W.-D.

R. ———. Wood N.E. of Bignor Chureh, W. Sussex, v.e. 13, July 13, 1922.—R. J. Burdon and J. E. Little. This is good *R. stylosa*, var. *systyla* Baker (*R. systyla* Bast.).—A.H.W.-D. This in my opinion is a large-leaved form of *R. arvensis* Huds. coming under var. *major* Coste.—W.B. I never saw sueh large dark green leaflets in any *arvensis* form. The hairs on the midribs in *arvensis* when present are usually longer and more scattered. The sepals won't do, and the hispidity on the peduncles is that of *systyla*, not *arvensis*. An important point in favour of *R. systyla* is that its petals are ± pink. I never saw *R. arvensis* with any but pure white petals, faintly cream in bud.—A.H.W.-D.

Sorbus, *or* Pyrus ?

A very difficult seetion : authors do not agree which generic term should be employed. Hedlund, in his aecount of the genus, differs from Lindberg, and British authors differ from both. The

great variation of *P. Aria* is often simply due to an open or close condition of the soil. On the chalk downs leaves from the same tree may exhibit considerable differences. The specimens sent are not enough for good determination. Collectors must remember that the more critical the genus the better the specimens required.—A.B.

In "Journ. Bot." 1916, p. 10, Marshall pointed out that he agreed with Dr. Hedlund and with Fries (and Nyman) in regarding *Sorbus* as "naturalissimi hujus generis"; and that it is difficult to see why this group should be ranged with the apples and pears in view of their marked difference in flowers, fruit and foliage. *Sorbus* is also adopted by Keller and Schinz, by Rouy, by Coste, and by Holmboe, to mention merely four modern authors whose works are by me. I regret the confusion some of my numerous gatherings were in, and that I left it too late to get Mr. White's help with them.—H.S.T.

Sorbus ——— near *latifolia* Syme [2426]. Top of cliff, south of Nightingale Valley, Leigh Woods, N. Somerset, v.c. 6, May 30, 1922. Flowers in dense corymbs, small (12 mm.). Tomentum slightly yellowish grey on leaf-veins. A very ornamental tree. —H. S. Thompson. Presumably *S. latifolia* Pers. Does it set fruit?—C.C.L. *P. latifolia* Syme = var. *decipiens* Beehst.—J.W.W.

S. Aria (L.) Crantz. *sensu latiore* [2420]. Large-leaved form, with large flowers 22—23 mm. across. Top of cliff, south of Nightingale Valley, N. Somerset, May 25 & 30, 1922.—H. S. Thompson. The dimensions of the flowers which Mr. Thompson gives are certainly unusually large. It would be interesting to know if the size is constant, or was due to the extraordinarily exuberant year of 1922 as regards the flowering shrubs.—J.G. A broad-leaved form, and not quite the common one.—J.F.

S. Aria (L.) Crantz. *forma* [Ref. C.]. Cheddar Gorge, top of cliff, south side, N. Somerset, June 1, 1922. Leaves long and nearly oval. Veins very prominent.—H. S. Thompson. *S. Aria.* —J.W.W. Why not *Aria*? Simply result of situation, etc.—A.B.

S. Aria (L.) Crantz., near var. *incisa* Reichb. [2421]. Top of cliff, south side of Nightingale Valley, N. Somerset, v.c. 6, May 30, 1922. Leaves oval, small. From the same tree as my [2222] June 1916, thus named by E. S. Marshall.—H. S. Thompson. *S. Aria* (L.) Cr., *ad incisam appropinquans.* Kam die Form in

mehreren Exemplarn vor?—Prof. Hedlund, per C. E. S. Doubtless on the road to *incisa*, but I think I can match it on our downs.—A.B.

S. Aria (L.) Crantz, var. *incisa* Reichb. [2430]. Tree near Ranger's cottage, Leigh Woods, N. Somerset, Aug. 1922.—H. S. Thompson. Probably right.—J.W.W. Mr. White's remarks ("Flora of Bristol," pp. 304—9), on the various species are excellent.—A.B.

S. Aria (L.) Crantz, var. *rupicola* Syme, or near it [2422]. In shade; no flowers obtainable. Top of cliff, south of Nightingale Valley, N. Somerset, May 30, 1922. Leaves cuneate at base; 5-8 veins. Passed by J. W. White.—H. S. Thompson. This certainly does agree to a great extent with Syme's description of his *rupicola*, but it is a young state and hardly safe to judge by.—A.B.

S. (*Pyrus*) *intermedia* Ehrh.? [Ref. A.]. Cheddar Gorge, June 1922.—H. S. Thompson. *S. Aria*.—J.W.W. (2) [2431] Clifton Down, W. Glos., June 6, 1922.—H. S. Thompson. I should name it *S. Aria* var. *incisa* Reichb.—C.E.S.

Chrysosplenium alternifolium L. Markham Bottom, Pill, N. Somerset, May 6, 1922. Sent because the leaves are somewhat difficult to dry well.—H. S Thompson.

Drosera anglica Huds. On the Urrisbeg, Connemara, Ireland, Aug. 21, 1907.—C. Bucknall and J. W. White. In Ireland this was first found at Edenderry before 1640, and first published by Parkinson in "Theatrum Botanicum," 1640.—H.S.T.

Epilobium palustre × *parviflorum*? Ippolyts Common, Herts., v.c. 20, Aug. 30, 1921.—J. E. Little. Assuming that in all the specimens the stigmas were not truly clavate, but ± 4-cleft, I should say they are correctly labelled: but they look much nearer *E. palustre* than *E. parviflorum*. The narrow almost entire leaves are almost those of *E. palustre*, and the filiform *palustre* stolons are present in nearly every plant. The habit and the colour of the flowers, on the other hand, favour *E. parviflorum*, and the irregular development of the seeds, which sometimes resemble those of *E. palustre*, no doubt points to hybridity.—H.W.P. *E. rivulare* Wahlenberg (*E. palustre* × *parviflorum*). Rouy "Fl. de France," vii. 198. "Souche munie de stolons grêles, radicants à l'arrière-saison et terminés par une rosette de feuilles courtes coriaces imbriquées; tige de 2—8 dem. + rameuse cylindrique mollement pubescente; feuilles linéaires-lanceolées,

sub-eunéiformes ou un peu arrondies à la base, sessiles ; stigmates en tête peu lobée ; capsules un peu velues, assez courtes ; graines papilleuses ; aigrette brièvement stipitée ; plante souvent stérile."

The following is a generalised description from notes on fresh specimens, but all the characters given are not present in any one plant. Stems mostly stouter, more erect, more hairy and with stouter root-fibres than in *E. palustre*. Leaves mostly of *E. palustre* type, but sometimes more pubescent, and sometimes with the rounded base of *E. parviflorum*. Æstival stoles sometimes present and mostly of *E. palustre* type, but sometimes stouter. Roots more branching than in *E. palustre*. Flower-heads nodding or erect Stigmas clavate in form, but obscurely 4-lobed. Seeds various: generally of *E. palustre* form and proportions, about 1·6 mm. long (rarely 2·0 mm.), not so bright brown or shining as in *E. palustre*, usually fusiform and with produced testa; but sometimes shorter, broader in proportion, darker olive-grey in colour, rather granulate (this, where it occurs, indicates *E. parviflorum*), and lacking the produced testa, or with testa only obscurely produced. With the putative parents.—J.E.L.

Bupleurum tenuissimum L. Among short grass on thin limestone soil, Durdham Down, W. Glos., very local, Aug. 20, 1922. Probably a recent introduction.—H. S. Thompson.

Apium inundatum Reichb. f. Tan-y-Bwlch Lake, Merioneth, v.c. 48. Sept 7, 1922.—W. C. Barton.

Daucus Carota L. Waste ground, Portishead, N. Somerset, v.c. 6, July 11, 1922. Florets all ♀. This state is thought to be due to poor nutrition.—Ida M. Roper.

Galium erectum Huds. Upland pasture, Sidcot, N. Somerset, June 19, 1922. In extraordinary variety this year. The smaller specimens, approaching *G. asperum*, retained for further study.—H. S. Thompson.

G. asperum Sehreber. (1) Rubble at base of limestone quarry near Shipham, N. Somerset, June 15, 1922. (2) Cheddar Gorge, June 15, 1922. (1) is more robust and paler green than that from Cheddar.—H. S. Thompson.

Valerianella carinata Lois. Garden weed at Ilminster, Somerset, v.c. 5, May 19, 1922.—H. Downes.

Antennaria dioica Gaertn. Connor Down, Cornwall, v.c. 1, June, 1921.—H. Downes.

Inula Helenium L. Side of meadow near Compton Dando, N. Somerset, v.c. 6, Sept. 2, 1922.—H. S. Thompson.

Centaurea nigra L., *sensu latiore.* Ivythorn Hill (Liassic) near Street, Somerset, July 31, 1922.—H. S. Thompson. *C. nemoralis* Jord.—C.C.L.

C. nemoralis Jord., var. *nevadensis* Gugler. Chalk pit, Downton, S. Wilts., v.c. 8, June 17, 1922.—Ida M. Roper. I do not like this determination. I do not agree with Gugler or Mr. Britton in identifying some of our English individuals with the plant of the mountains of southern Spain. The specimen is by no means typical *nemoralis*, and seems to me about intermediate between *pratensis* and *nemoralis*. It is obviously radiant.—C.C.L.

Taraxacum erythrospermum Andrz. (**1**) Limestone rocks and slopes, Penpole Point, Avonmouth, W. Glos., May, 1922.—H. S. Thompson. The outer phyllaries in this species are often more or less adpressed, and this, I think, has occasionally led to its being mistaken, when young, for *T. palustre* DC.—H.W.P. (**2**) Durdham Down, Clifton, May, 1922. Achenes dark red.—H. S. Thompson. (**3**) Cricket Field, Hitchin, Herts., v.c. 20, June 2, 1922.—J. E. Little.

Lactuca Serriola Linn. [592]. By the railway near Penrhyndendreath, Merioneth, v.c. 48, Sept. 8, 1922.—W. C. Barton. No record of *L. Serriola* known to us for v.c. 48.—G.C.D., C.E.S.

Jasione montana L., forma. Porlock Weir, Somerset, July, 1922.—H. S. Thompson. The sheet sent shows fragmentary pieces of what is probably a secondary growth, but I think from the rather broad leaves and bracts, as well as the coarse calyx-teeth, that the plant belongs to my variety *latifolia* although it is not characteristic.—H.W.P.

Limonium vulgare Mill., var. *pyramidale* Druce. Wells, W. Norfolk, v.c. 28, Aug. 22, 1922.—J. E. Little.

L. binervosum C. E. Salmon. Wells, W. Norfolk, v.c. 28, Aug. 22, 1922.—J. E. Little. Yes; *Statice binervosa* G. E. Smith.—C.E.S.

Omphalodes verna Moench. Copse, Wallington Park, W. Norfolk, v.c. 28, May 7, 1922. Coll. Anna Luddington. The plants flower freely in dense copsewood, and closely cover about eighty square yards. I could find no fruit on June 15, 1922. Possibly they spread by their creeping stems, and do not set seed. I am indebted to Mr. E. G. Baker for help towards the above determination.—J.E.L.

Symphytum orientale L. Garden weed, Winchmore Hill, Middlesex, June 5, 1922.—L. B. Hall. Yes.—H.S.T.

Echium plantagineum L. St. Brelade, Jersey, June 6, 1905.—J. W. White. Yes.—C.C.L.

Solanum nigrum L., var. *prostratum* F. Gér. St. Philip's Marsh, Bristol, v.c. 34, Oct. 13, 1922.—Ida M. Roper. F. Gérard (Magnier, Scrinia, 1895, 356) says—"caule prostrata, foliis parvis, fere integris." Miss Roper's plant looks right.—C.E.S.

Verbascum Lychnitis L., var. *micranthum* (Moretti). Fls. yellow, see Dunn in "Journ. Bot." 1894, p. 23. Steep hillside near Bossington, Somerset, v.c. 5, July 16, 1922.—H. S. Thompson.

V. Chaixii Vill. (*V. gallicum* Willd.). Alien. Ashton Gate, Bristol, July 15, 1911. Coll. C. Bucknall. Comm. J. W. White. Probably.—C.C.L.

Sibthorpia europaea L. Damp laneside near Horner Combe, Porlock, Somerset, v.c. 5, July, 1922.—H. S. Thompson.

Euphrasia Rostkoviana Hayne [2422 & 2424]. (1) Rough hilly pasture above Porlock, Exmoor, 900—1000 ft., July, 1922. Sub-Alpine form—fide H. W. Pugsley.—H. S. Thompson. Yes. —W. H. Pearsall. A starved state of No. 2423. In 1919 this plant was equally dwarfed on the slopes of Myrtleberry Cleave in the Lyn valley.—H. W. Pugsley. (2) [2423] Horner Combe, Porlock, Somerset, v.c. 5, July, 1922. Chiefly under braeken.—H. S. Thompson. Yes; liberally supplied with glandular hairs. —W. H. Pearsall. A slender form of *E. Rostkoviana* widely spread over Exmoor. It is identical with the plant distributed through the Bot. Exch. Club from Myrtleberry Cleave, Lynmouth, in 1917, and erroneously named *E. fennica* Kihl.—H. W. Pugsley.

E. brevipila Burnat & Gremli. Peatmoor, near Street, Somerset, Aug. 1, 1922. In the *Carex evoluta* enclosure, but frequent on the moor.—H. S. Thompson. I should call this *E. Rostkoviana*. —W. H. Pearsall. This plant shows, chiefly on the calyx, the subsessile glands which characterise *E. brevipila*, but in most other respects it is clearly different and recalls in some degree *E. borealis*. A very similar plant was distributed by Rev. H. J. Riddelsdell from Wigginton in 1918 and 1919.—H. W. Pugsley.

E. Kerneri Wettst. Lilley Hoo, Herts. and Beds., v.c. 20 and v.c. 30, Sept. 12, 1922.—J. E Little. Just like the handsome *Kerneri* that grows on our Downs at Reigate.—C.E.S. Yes; beautiful examples of this.—W.H.P. I agree.—H.W.P. Will members who received (from the B.E.C.) Mr. Cosmo Melvill's *E. scottica* (which is *E. Kerneri*) please note that the present plant has the same *salisburgensis*-like leaves, although much fewer in number?—W.H.P.

E. stricta Host [65]. Roadside near Perranporth, W. Cornwall, Sept. 4, 1922. So named by Mr. Bueknall. This plant seems quite distinct from the ordinary much-branched forms of *E. nemorosa.* The habit is usually strict, though occasionally the branches are wide-spreading.—F. Rilstone. Nearly eglandular *E. brevipila.*—W. H. Pearsall. The sheet sent shows slender, almost unbranched specimens, which I think are a drawn-up form of *E. nemorosa.* Vide "Journ. Bot." p. 3 (1922).—H. W. Pugsley.

E. ——— [66]. Roadside, Goonhavern, near Perranporth, v.c. 1, Sept. 4, 1922. Much like No. 65, but usually more robust.—F. Rilstone. Nearly eglandular *E. brevipila.*—W. H. Pearsall. The sheet seen has three specimens, of which one seems identical with the plants from Perranporth (No. 65) and is *E. nemorosa.* The remaining specimens are more robust and bear thick floral leaves with relatively short teeth. These though not typical, seem referable to *E. borealis* rather than *E. nemorosa*, but I am not confident that these two reputed species are always separable.—H. W. Pugsley.

E. gracilis Fries [64]. Goonhavern Moor, W. Cornwall, Sept. 4, 1922.—F. Rilstone. Yes; typical specimens, but badly covered with mould.—W. H. Pearsall. The specimens were gathered late and show fruits without flowers, but I think they are rightly named. They show markedly the suberect, central branching, that characterises this species and *E. stricta.*—H. W. Pugsley.

Thymus ovatus Miller. Lias bank, near Compton Dando, N. Somerset, v.c. 6, Aug. 16, 1922. "Apparently rare in the vicinity of Bristol," to quote Mr. White (under the name of *T. Chamaedrys*). —H. S. Thompson. It is quite useless to collect scraps like this in difficult genera, but I think it is either *ovatus* or *glaber* Mill.— C.C.L. Correct.—A.B.J.

T. ——— Flowers white, leaves pale green. Drier part of salt marsh (with *Cladonia*, etc) between Weymouth and Portland, Dorset, Aug. 27, 1922.—H. S. Thompson. I can see nothing in this but a form of *T. Serpyllum*, which is frequent in dry and exposed situations and uncongenial soil, especially near the sea. It often occurs with white flowers, and is sometimes very hairy.—A.B.J.

Teucrium Chamaedrys L. Old wall at Curry Mallet, Somerset, v.c. 5, Aug. 25, 1922.—H. Downes. Var. *hirsutum* Celak.—C.C.L.

Herniaria ciliata Bab. Rocks near coast, Lizard, v.c. 1, June 1922.—H. Downes.

Scleranthus perennis Linn. Thetford Heath, Suffolk, June 1920.—Miss M. Cobbe. Comm. F. Rilstone. Is that species, and a fine example.—H.S.T.

Chenopodium rubrum L., var. *pseudo-botryoides* Wats. St. Philip's Marsh, Bristol, W Glos., v.c. 34, Oct. 16, 1922.—Ida M. Roper.

Salicornia dolichostachya × *herbacea*. Mud of "King Road," below Portbury, N. Somerset, Oct. 14, 1922. With both parents. Similar (fresh) specimens passed as such by Dr. E. J. Salisbury. First record for Bristol Channel.—H. S. Thompson.

Polygonum dumetorum L. Lessness Woods, Belvedere, W. Kent, v.c. 16, Sept. 1922.—W. Watson and St. J. Marriott.

Polygonum [*mite* Schrank]. Sandy lane, Wolferton, W. Norfolk, v.c. 28, Aug. 30, 1922.—W. Lomas and J. E. Little. This must be *Hydropiper*; *mite* has eglandular perianths, shining nuts, etc.—C.E.S. *P. Hydropiper* L.—H.W.P.

Rumex obtusifolius L. [529]. Fruits. Wells, W. Norfolk, v.c. 28, Aug. 30, 1922.—W. Lomas. Comm. J. E. Little. Fruiting segments about 4·0 mm., reticulate, strongly-toothed, one slightly larger; teeth commonly over 1·0 mm. Achenes 2·5 mm. long. One large tubercle 1·5–2·0 mm. long, a second, and often a third, nearly as large.—J.E.L. This is *R. Friesii* Gren. & Godr. Fl. Fr. (1855), 3. 36, and *R. obtusifolius* (*a*) *Friesii* Doell. Baden, 185. I have seen no *R. sylvestris* Wallr. from Norfolk.—A.B.

Euphorbia virgata W. & K. Barry Dock, Glamorgan, June 1922.—A. E. Wade. Comm. Nat. Mus. of Wales. Yes.—C.C.L.

E. Esula L., var. *pseudo-Cyparissias* (Jord.). Dernford Fen, Cambs., June 27, 1922.—A. J. Crosfield. Yes.—C.C.L. & A.B. This is not *E. Esula* var. *pseudo-Cyparissias* of British authors, nor is it the plant of Jordan. I have carefully compared it with true *E. virgata* Waldst & Kit. (well figured by them). It differs from type *virgata* in several points, and has much larger flowers than *E. virgata* var. *esulifolia* Thell.—E.G.B. In Mr. Baker's absence in Spain, Mr. Wilmott was asked for a further opinion, and writes: "This does not correspond with the sheet of *E. pseudo-Cyparissias* from Jordan, which is in Herb. Mus. Brit. Nor is it *E. virgata* W. & K.; and although it approaches the forma *esulifolia* Thellung, it differs in its larger cyathia. Seeds are essential for the study of Euphorbias, and this group is in great need of revision."—A.J.W. Mr. Baker and Mr. Wilmott kindly

gave some time to this plant. Mr. Baker points out that it is of importance to know the direction of the root, which in *E. virgata* is '*simplex, descendens*' (W. & K.), whereas in *E. Esula* it is creeping. It is also useful to note and draw if possible the form of the glands of the involucre when fresh. More material, in several stages, would be welcomed. Will members kindly examine "*Euphorbia Esula* L. Downs at Lewes, June 17, 1915. Coll. R. S. Standen" (W.E.C.R. 1915, 553)? The glands of the involucre have a rounded concave sinus between them, which agrees with Waldstein and Kitaibel's figure of *E. virgata*. Sowerby's figure of *E. Esula* shows glands with a convex projection in the sinus between the horns.—J.E.L.

E. exigua L., an intermediate near var. *retusa* DC. About a quarry, Portland Isle, Dorset, Aug. 27, 1922. Seeds grey, not white.—H. S. Thompson. Surely much nearer type than *retusa*? This interesting small form with imbricate leaves seems to occur always on purely untouched, not cultivated, ground. I cannot find other characters to separate it; yet it looks distinct. Mr. J. C. Melvill's plant from Little Orme's Head (B.E.C. Report, 1901, 26) seems the same, and I have gathered it on cliffs in the Isle of Wight and on the west coast of Thorney, Sussex; in the last station it was quite prostrate on the shore.—C.E.S.

Urtica dioica L., var. *subinermis* Uechtr. Waste ground, Portishead, N. Somerset, v.c. 6, Aug. 3, 1922. The plant could be handled in comfort, as only a few stinging hairs were present. The leaves are rounder than usual, and it may be the var. *rotundata*, named recently by Dr. Druce. See B.E.C. Report, 1921, p. 307.—Ida M. Roper. I think this has too many stinging hairs for this variety: the branches are fairly well armed. I have not seen Uechtritz's original description, but Ascherson and Graebner describe this variety as having no stinging hairs, or very few.—C.E.S.

Alnus incana DC. (1) Folly Alder Swamp, Hitchin, Herts., v.c. 20, July 28, 1922. For notes, see "Journ. Bot." May, 1922.—J. E. Little. (2) Edge of Wood, Arnside, Westmoreland, v.c. 69*a*, Aug. 16, 1922. Coll. T. Cuckney. Comm. W. H. Pearsall. Although widely spread in Europe it has no claim to be considered native either in the north of England, or near Hitchin where Mr. Little found it recently.—A.B.J. Appears correct; doubtless planted.—J.F.

Carpinus Betulus Linn. (1) [639] Denham Golf Links, Bucks., v.c. 24, July 1, 1922.—W. C. Barton. Near var. *provincialis*.—

G.C.D. I see no reason for adding any qualification to the name *C. Betulus* L. Look at "Fl. Italica Exsicata," No. 247, for a slightly different form (leaves and bracts) from Tuscany, which for all I know may be var. *provincialis*, not mentioned in Italian floras.—C.C.L. Does not always fruit, though in some years heavily laden. It sows itself freely like a true native.—J.F. (2) [526] A free-growing tree in a pasture, St. Ippolyts Glebe, Herts., v.c. 20, Sept. 29, 1922.—J. E. Little. Laminæ about 7 cm. long and 4 cm. broad, acute or subobtuse. Cupule lobes up to 4 cm., occasionally with a few shallow teeth. Nut of moderate size, about 6·0 mm. long. For discussion as to the native character of the Hornbeam in Herts. see Dr. E. J. Salisbury's "Oak-Hornbeam Woods of Hertfordshire," "Journ. Ecol." Vol. IV, No. 2, June, 1916. The earliest record of *planting* in Herts. is apparently 1742 (ibid 85), and many of our copses, where the shrub layer is almost exclusively hornbeam, are presumably of artificial origin. The scattered trees in hedgerows and woods however indicate that the tree spreads naturally. Yet it is curious that Abbot in his "Flora Bedfordiensis" (1798) makes no mention of the tree for that county. Dr. E. J. Salisbury, dealing with the '*Quercus Robur-Carpinus*' woods of mid-Herts., states (p. 99) that the shrub layer 'usually consists almost entirely of *Carpinus Betulus*, var. *provincialis*. His map shows that the woods with which he is dealing lie mainly within these limits—St. Albans, Harpenden, Whitwell, Datchworth, Bayford, Northaw, N. Mimms, St. Albans.—J.E.L.

Corylus Avellana L. Sandford Hill, N. Somerset, v.c. 6, Aug. 10, 1922. A strong bush, but with very small leaves.—Ida M. Roper. Appears to be merely a starved state, probably due to uncongenial soil; its habitat should have been stated.—A.B.J. Both leaves and fruits indicate a distinctly miniature form. I can see no name for it.—J.F.

Salix triandra L. ♂, subsp. *Hoffmanniana* (Sm.) [501]. Below Brook End, St. Ippolyts, Herts., v.c. 20, Oct. 24, 1921 & May 21, 1922. Det. E. F. Linton.—J. E. Little. Catkins shorter and fewer than in *S. triandra*. The leaves are variable but unmistakable.—J.F.

S. [*triandra*] × *viminalis* ♀ [502]. Osier Bed, Purwell, Hitchin, Herts., v.c. 20, Aug. 18, 1921 & April 11, 1922. The leaves are of two forms: (*a*) long, narrow, acute, of *S. viminalis* character, but glabrous and greenish on the lower pagina; (*b*) narrow oblong, with tips often almost truncate or rounded obtuse.

The tips of the leaves at the base of the flowering catkins are discoloured. In 1923 the catkins expanded better, but remained small (1—1·8 cm. long).—J. E. Little. I suppose this is right; but the stipules are as narrow as in *S. viminalis*.—E.F.L. Probably correct, but the few ovaries on my sheet are too young for stable determination.—W. H. Pearsall. The few remaining linear, small and searious stipules, soon fugitive, show this to be *S. purpurea* × *viminalis* (*S. rubra* Huds.). The leaves are longer than average specimens of *S. hippophäefolia* (Thuill.), which I have seen, and they are glaucous green beneath, showing the influence of *S. purpurea*, as do the small slender catkins.—J.F. I do not see *S. triandra* in this, and should think it to be *S. purpurea* × *viminalis* (*S. rubra* Huds.). Its stipules are linear-lanceolate and not in the least cordate.—H. W. Pugsley.

S. alba var., *coerulea* × *fragilis* ♀ [503] Little Wymondley, Herts., v.c. 20, June 11, 1922.—J. E. Little. I agree.—E.F.L. Yes—*alba* × *fragilis*. Most of the leaves are quite glabrous, but the few young ones present clearly show the *alba* pubescence.—W.H.P. I agree with this. The broad finely attenuate leaves, glaucous beneath, ± silky when young, are quite characteristic. The length of the catkins is splendid, but they should have been gathered in May, as mine have opened their capsules, which are pedicellate and correct for the hybrid.—J.F.

S. viminalis L. ♂ Hedgerow on peat, Greenodd, N. Lanes., 69 B. Fls. April 17, 1922; Ls. Oct. 5, 1922.—W. H. Pearsall. Yes.—E.F.L. Shows splendid vigour on peat. I have seen *S. cinerea*, *S. aurita*, *S. caprea*, and *S. repens* on such formations; but *S. caprea* least often.—J.F.

S. caprea × *viminalis* (*S. mollissima* Sm. ♂ [504]. Swamp, right bank of River Hiz, between Grove Mill and Hyde Mill, Hitchin, Herts., v.c. 20, Feb. and June 1921, March and July 1922.—J. E. Little. I think undoubtedly correct.—E.F.L. I would prefer to name this *S. cinerea* × *viminalis* (*S. Smithiana* Willd.). The relative silkiness of the younger leaves would ally it with *S. velutina* Schrad. and *S. holosericea* Willd. The older leaves are assuming the rusty hue of *S. cinerea*. The narrow entire stipules, the pubescence of the buds, and the few short striations under the peel all point to *S. cinerea* × *viminalis*.—J.F.

S. aurita × *caprea* ♀ [505]. Vicarsgrove Wood, St. Ippolyts, Herts., v.c. 20, March 11, 1921, and Sept. 29, 1922.—J. E. Little. A small tree about 12 ft., with central stem about 3 in. diameter, and branches spreading all round like a standard plum tree.

Wood without striation. Bracteoles oblong obtuse or subacute, not ferruginous, blackish-brown above. Catkins small. Leaves small, with crenate margin and oblique and twisted tip; the early ones often subrotundate. The hybrid may, however, have (as in other bushes from the neighbourhood, agreed to by Mr. Linton) considerably larger leaves.—J.E.L. I agree.—E.F.L. The evidence for each of the suggested parents is, in my judgment, ample.—W.H.P.

S. aurita × *caprea* ♀ [522]. Triangle between M.Ry. and G.N.Ry, Ickleford, Herts., v.c. 20, April 10 and June 27, 1922. Confirmed by E. F. Linton.—J. E. Little. Yes, I think so.—W.H.P.

S. aurita × *cinerea* ♂ [507]. Hedgerow, Benslow, Hitchin, Herts., v.c. 20, April 26 and Sept. 25, 1922.—J. E. Little. I agree.—E.F.L. The catkins afford suffieient evidence of *aurita*, although some of the substantial twigs, with their many large buds, might suggest *cinerea* alone.—W.H.P.

S. aurita × *cinerea* ♂ [506]. Maidencroft, Hitchin, Herts., v.c. 20, April 30 and July 1, 1922.—J. E. Little. I agree.—E F.L. The form of the leaves, the slender glabrescent one-year-old twigs, the small size of the catkins, their broad rounded black bracts, the numerous long striations under the peel, etc., all point to the name being correct.—J.F.

S. aurita × *cinerea* ♂ [508]. Ippolyts Common, Hitchin, Herts., v.c. 20, April 9 and Aug. 4, 1922.—J. E. Little. Yes.—E F.L. A very beautiful intermediate. The foliage indicates *aurita*, but the absence of rugosity at once attracts notice. This, together with the lighter colour, the broad and blackened braets, and the filaments pilose at the base, would appear to be due to *cinerea*.—W.H.P. This is evident in the leaves, twigs, catkins, etc., but the leaves are less densely pubescent than I have generally ascribed to *S. aurita* × *cinerea* (*S. lutescens* Kerner), though this would vary according to the parents and character of the situation. The young leaves are decidedly rugose.—J.F.

S. ——— × *cinerea* ♀ [509]. Benslow, Hitchin, Herts., v.c. 20, April 20 and July 22, 1922.—J. E. Little. *S. aurita* × *caprea* × *cinerea*?—E.F.L. Leaves too narrow, and catkins too long for *S. Reichardti* Kerner. It would suggest *S. aurita* × *cinerea* × *caprea*. *S. aurita* by the colour of the pubescence and the stipules; *S. cinerea* by the shape of the leaves and the short striations under the bark; and *S. caprea* by the great length of the lower leaves and by the length of the style.—J.F.

S. cinerea × *viminalis* ♂ [510]. Spinney near Sootfield Green, Offley Holes, Herts., May 2 and Sept. 4, 1922. See W.E.C.R. 1921, p. 182. Comparing the wood under the peel of [510] with that of [504], it will be seen that the striation in the former is well marked; in the latter there is no evident striation.—J.E.L. Correct, I should say.—W.H.P. I quite agree to this, which is a form of the polymorphous hybrid *S. cinerea* × *viminalis*, many or most of which have originated in Britain.—J.F.

S. cinerea L. ? Edge of outlet from Esthwaite Lake at Ees Bridge, N. Lanes., v.c. 69 B. Fls. April 18, ls. Sept. 30, 1922.—W. H. Pearsall. *S. aurita* × *cinerea* ?—E.F.L. I consider this quite an ordinary form of the species. The catkins are small, but they are very imperfectly fertilised.—J.F.

S. cinerea L., f. *oleifolia* (Sm.). Ditch bank, Wraxall, N. Somerset, v.c. 6, April 13 and Aug. 23, 1922.—Ida M. Roper. Probably *S. aurita* × *cinerea*.—E.F.L. This much resembles forms common on our lake margins, one of which I sent in this year tentatively labelled *S. cinerea* ? In Miss Roper's plant there is little evidence in the foliage—except the narrowly-reflexed margins—of the presence of *aurita*. The catkins, however, are very small, and their ovaries less subulate and more nearly cylindrical than those of *cinerea*. The ovaries too are evidently, though very shortly, styled; but this is a character frequently found in the hybrid *aurita* × *cinerea*, and I am inclined to this determination in the case in question.—W.H.P. Not distant from Smith's *S. oleifolia* in size and shape of leaf; but teeth too large, and I have rejected quite a number of similar ones. My specimens, both ♂ and ♀, have a close and beautifully netted venation with very rusty hairs, the catkins being large. I prefer to call this simply *S. cinerea* L., a very polymorphic species apart from hybrids.—J.F.

S. cinerea L., abnormal var. Field near Salt Hill, Fishbourne, Sussex, v.c. 13, March 29 and July 10, 1922.—R. J. Burdon. *S. cinerea*, androgynous form, in the main, with a strain in it, I think, of *S. aurita*.—E.F.L. This condition is not a variety. I have always presumed it to be galled by a species of mite (*Eriophyes*). It is what is termed androgynous. The stamens of the ♂ plant are converted into very long-stalked ovaries more or less perfect, but presumably never fertile This monstrosity occurs in *S. aurita*, *S. cinerea*, *S. caprea*.—J.F.

Populus tremula L. ♂ Bank of Avon, Bristol, N. Somerset, v.c. 6, March 11 and Oct. 20, 1922. The staminate plant is very rare in Somerset.—Ida M. Roper. In every way typical.—J.F.

Allium sibiricum Linn. Lizard Downs, Cornwall, v.c. 6, May 1922.—H. Downes.

Juncus Gerardi Lois. Plentifully in mowing grass, alluvial meadow, south of Sea Mills, W. Glos., June 14, 1922. It is found on saline soil even in Switzerland.—H. S. Thompson.

J. conglomeratus L. Midhurst Common, W. Sussex, v.c. 13, July 11, 1922.—J. E. Little. In amplification of distinctions given in "Babington," 9th edn., may be quoted Rouy, "Fl de Fr.", XIII. 224 (1912): "*J. effusus.* Anthèle lâche *à gaine non ou peu renflée.*—*J. conglomeratus.* Anthèle ordinairement compacte, *à gaine renflée.*"—J.E.L.

Luzula Forsteri DC. Wall, Midhurst, W. Sussex, v.c. 13, July 11, 1922.—J. E. Little. Yes.—H.S.T.

Alisma Plantago-aquatica L. Young floating leaves. Rhine near Portbury, N. Somerset, May 6, 1922.—H. S. Thompson.

Ruppia rostellata Koch. (**1**) Saltmarsh, Portishead, N. Somerset, Oct. 1, 1904.—J. W. White. Yes.—A.B. (**2**) Wells, W. Norfolk, v.c. 28, Aug. 22, 1922.—J. E. Little. Yes.—W.H.P.

Cyperus longus, L. Ditch at Landewednack, Lizard, Cornwall, v.c. 1, Sept. 1920.—H. Downes.

Scirpus Savii Seb. et Maur. N. Somerset, Sept. 22, 1904.—C. Bucknall. Comm. J. W. White. *S. Savii* Seb. et Maur., var. *monostachys* Syme, "Eng. Bot." ed. 3, x. 59, 1870. Syme refers this to *Isolepis pygmæa* Kunth, 2, 191 (1837), and Kunth certainly quotes "*Scirpus cernuus* Vahl. Enum, 2, 245 et herb." But the original *pygmæa* was from the Magellan Straits.--A.B.

Carex divisa L. [var. *chaetophylla* (Steud.) Küken.]. (**1**) Waste ground by River Avon, Ashton Gate, N. Somerset, June 5 & 29, 1922.—H. S. Thompson. Best under type, I believe; leaves not narrow enough, perigynium too broad and beak too short for *chaetophylla.*—C.E.S. (**2**) Edge of Chesil Bank, near Abbotsbury, Dorset, Aug. 26, 1922. Extremely rare in Dorset, as it is throughout the S.W.—H. S. Thompson. In good fruit, but I think must be referred to *divisa.*—A.B.

C. paniculata × *remota* = *C. Boenninghausiana* Weihe. Near Reigate, Surrey, with the parents, June 12, 1920. An extremely tiresome plant to press owing to its leaves requiring much attention to necessitate their remaining flat—*i.e.* more channelled than in *axillaris*; and also their rougher edges cause trouble.

Plant growing in dense tufts, very unlike the habit of *axillaris*, its chief mimic.—C. E. Salmon.

C. contigua Hoppe. (**1**) Wallington, W. Norfolk, v.c. 28, June 18, 1922.—J. E Little. Yes.—A.B. and C.E.S. Yes: under *C. muricata* L.—G.C.D. (**2**) [2222] Ashton Gate, N. Somerset, June 5 & 29, 1922.—H. S. Thompson. So I should name it.—C.E.S. Yes; the fruit seems right.—A.B. (**3**) Dwarf and often prostrate form, persistent about Shipham, N. Somerset, June, 1922.—H. S. Thompson. I agree: a dwarf state (caused perhaps by local conditions?).—C.E.S. A small state of *C. muricata* L.—G.C.D. Does not Dr. Druce mean *muricata* of Goodenough *non* Linn. ?—H.S.T.

C. Pairæi F. Schultz? Sandy land, Midhurst, W. Sussex, v.c. 13, July 11, 1922. These plants are from the same locality as those distributed to the W.E.C. in 1920 by Preb. Burdon. The perigynia measure about 4.0 mm., and have a slightly winged margin.—J. E. Little. Yes; characteristic in ligule, fruit, etc.—C.E.S. I think this must be referred to *C. contigua*, of which it has the fruit; *Pairæi* has shorter and relatively broader fruit, and the apex is more open.—A.B.

C. leporina L. Between blocks of stone forming the embankment of Harlock Reservoir, N. Lancs., v.c. 69*b*, June 24, 1922.—W. H. Pearsall. Yes, in this state it strongly reminds one of some N. American species.—A.B.

C. elata All. Bank of water hole near Tickenham, N. Somerset, June 10, 1909.—C. Bucknall. Comm. J.W.W. I suppose this must be referred to Goodenough's plant (I have no specimens of *C. Buchii* Wimmer), but it seems to me to bear in this good fruiting state some differing aspect from *stricta*; but of British sp. it is *stricta*.—A.B.

C. humilis Leysser. Limestone slopes of Durdham Down, Bristol, v.c. 34; where in places it forms the chief sward of the declivities. April—May, 1922. Mature green leaves, July 28, 1922.—H. S. Thompson.

C. montana L. Rough pastures, Charterhouse on Mendip, N. Somerset, June 1, 1922.—H. S. Thompson. It is rather extraordinary how the records of this *Carex* have increased. "Gathered by Mr. Mitten near Tunbridge Wells in 1843"; though Borrer gave that date as 1842. But it is not recorded in Babington's "Manual," ed. 1 (1843). In 1908 it was on record for 11 vice-counties; it is now recorded for 22.—A.B.

C. depauperata Curtis. Bank near Axbridge, N. Somerset, May 17, 1920 & June 23, 1921.—H. S. Thompson. This was first described by Curtis in Withering's "Bot. Arr. Brit. Pl." ed. 2, 1049 (1787). It has become very rare in Surrey, extinct in Kent, and there is no confirmation of the Devon record; so the re-discovery in Somerset by Mr. Pugsley in 1911 was very welcome. The Somerset station is usually attributed to a Mr. Norman in Herb. Watson and to T. B. Flower in 1860. But in Curtis' "Fl. Lond." he says, after giving the Kentish station (found by Goodenough, Curtis, and Whitfield), "Mr. Dickson informs me that he has observed the same species near Godalming, Surrey; and we are informed that it has been found by Mr. Sole of Bath (1739 ?—1802)." It was named in the same year, 1790, by Thuillier in his "Fl. des envir. de Paris," p. 490, as *C. monilifera*; and by Curtis *C. ventricosa* in his "Fl. Lond." I. t. 68 (e. 1790). It is recorded in the "Botanists' Guide" of Turner and Dillwyn, 1805, by Mr. Dickson—"Dry woods near Godalming."—A.B.

C. binervis L. (**1**) Large plants 3 ft. high, from 1400 ft. on the Exmoor watershed above Exford, Somerset, v.c. 5, July, 1922. In Somerset, as elsewhere, this sedge thrives on some of the highest moors of Mendip, Quantock, and Exmoor.—H. S. Thompson. I agree.—C.E.S. A very dark fruited form of this species, in colour simulating the Alpine form var. *alpina* Drejer. —A.B. (**2**) Blackdown, Mendip, Somerset.—C. Bucknall. Comm. J. W. White. Nice specimens.—C.E.S.

C. distans L. Old Town Marsh, Scilly Isles, June 14, 1922.—H. Downes. Yes.—A.B. This is surely *binervis*. Fruit larger and more tapering into longer beak in *distans*; its ribs too are more equal in strength and more conspicuous.—C.E.S.

C. Oederi Retz., var. *oedocarpa* And. Old Town Marsh, St. Mary's, Scilly Isles, June, 1922.—H. Downes. Correctly named. I should say.—C.E.S. Seems to agree with Anderson's description very well.—A.B.

C. rostrata × *vesicaria*. (**1**) Marsh near River Derwent, N. of Keswick, Cumberland, July 13, 1919.—C. E. Salmon. (**2**) Near Derwentwater, Lodore, Cumberland, July 22, 1919.—C. E. Salmon. × *C. Pannewitziana* Figgert D.M.B.V. 97 (1887) = *C. ampullacea* × *vesicaria* Focke. Seems certainly to be this. The male spikes and stipitate fruit so say.—A.B. This seems very rare also on the Continent.—H.S.T.

Spartina Townsendi H. & J. Groves. Estuary, Milford-on-Sea, Hants., Aug. 19, 1922.—A. J. Crosfield. Yes.—A.B.

Alopecurus bulbosus Gouan. Mud flats, Rumney, Mon., v.c. 35, June, 1922.—A. E. Wade. Comm. Nat. Mus. of Wales. Correct, I believe.—C.E.S. Yes.—A.B.

Agrostis setacea Curt. Hills above Porlock, at about 1000 ft., Somerset, v.c. 5, July, 1922.—H. S. Thompson. Seems an additional station to those given in the "Flora of Som." and "Suppl."—A.B. It is, however, locally common on the moors in the west of the county. Not found in Wilts. nor Glos.; and apparently confined abroad to Belgium, France, Spain, and Portugal.—H.S.T.

Gastridium australe Beauv. Limestone slope of Durdham Down, Bristol, v.c. 34, July 28, 1922.—H. S. Thompson. Yes; the proper name is *G. ventricosum* (Gouan) Schinz et Thell.—G.C.D. Various opinions have been expressed by authors as to its nativity in Britain. Mr. Thompson's record seems to read like a native.—A.B. The same doubt appears to exist on the Continent. In White's "Fl. of Bristol" its status in that area is well expressed as "Native on the Carboniferous Limestone at Clifton: sporadically on waste ground about Bristol; and more rarely still inland." I am grateful to Dr. Druce for pointing out its correct name; and observe that it was in 1768 that Gouan named this grass as *Agrostis ventricosa* in his "Hortus Monspel."—H.S.T.

Molinia cærulea Moench, var. *major* Roth. Wimbledon Common, Surrey, v.c. 17, Sept. 1922. Coll. W. R. Sherrin and St. J. Marriott. Roth's name, "Fl. German." 1788, seems much earlier than Link's var. *altissima* which is quoted by Koch in "Syn. Fl. Germ. et. Helv." ed. 3.—A.B.

Glyceria Borreri Bab. (**1**) Cley, v.c. 27, Aug. 19, 1922. (**2**) Wells, v.c. 28, Aug. 22, 1922.—J. E. Little. Additional stations to those given in the "Flora of Norfolk," 1914.—A.B. I found *G. Borreri* growing in a dyke at Holkham near the coast. It was confirmed by Mr. Ar. Bennett, who said that it had not been reported so far north before.—F. Long. If this is *Borreri*, the rigid apiculus on the lower pale (so emphasized by Babington, and so conspicuous on my examples from our South Coast) is not very obvious.—C.E.S. In both cases these plants, with *G. distans*, were colonising bare mud. The Cley plants were on a marsh formerly embanked and drained, but now reached by heavy tides over the broken wall behind the shingle beach.

The Wells plants were at a watering-place for cattle, within the banks, but probably slightly saline, as *Ruppia rostellata* was growing in a neighbouring ditch. I examined the Wells plants when fresh, and thought I saw clearly "the rigid apiculus formed by the tip of the dorsal vein" of the flowering glume, of Babington's description; but I must admit that on re-examination of the dry plants in consequence of Mr. Salmon's remark, the feature was by no means so clear as I had thought at the time of gathering.—J.E.L.

G. procumbens Dum. Sea wall, Rumney, Mon., v.c. 35, June 1922.—A. E. Wade. Comm. Nat. Mus. of Wales Yes.—A.B. I believe so. Syme (E.B. ed. 3, XI, 107; 1872) states that the ligule is "elongate, narrowly triangular, acute." I find them short and ± rounded in this species.—C.E.S.

Festuca rottboellioides Kunth. Shingle, Snettisham, W. Norfolk, v.c. 28, June 21, 1922. Growing mixed with this were a few plants of *Lepturus incurvatus* Trin., having anthers 0·6 mm. long, which Hackel (W.E.C.R. 1908, 209—10) gives as a certain distinction from *L. filiformis*, in which the anthers are 2·8 mm. long. The stems were short and incurved, and the base of the culm was hidden in the upper sheath. I hope at a future date to obtain enough of this for distribution. *L. incurvatus* has not, I think, been recorded for Norfolk.—J. E. Little.

Schlerochloa loliacea Woods. Swanage, Dorset, v.c. 9, June 1922.—W. R. Sherrin. Yes.—A.B.

Bromus unioloides H.B.K. Woolwich Common, W. Kent, v.c. 16, Aug. 1922.—St. J. Marriott. An alien grass.—A.B.

B. maximus Desf. Bournemouth, S. Hants., v.c. 11, June 1922.—W. R. Sherrin. Not noted in the "Fl. of Hampshire" or "Fl. of Bournemouth."—A.B.

Lolium perenne L. var. Appledram, W. Sussex, June 14, 1922.—R. J. Burdon. Some specimens are the var. *compressum* Sibth.—G.C.D. For an interesting account of the teratological forms of this species (of which this is one) see M. T. Masters in "Journ. Bot." 1863, 6.—C.E.S.

Hordeum europaeum All. Chipstead, Surrey, July 1922.—W. R. Sherrin. Yes.—A.B.

Hymenophyllum peltatum Desv. Rocks in Festiniog Valley, Merioneth, v.c. 48, Sept. 13, 1922.—W. C. Barton.

Blechnum Spicant (L.) With. Bifid and very narrow fronds. Hawkeombe, near Porlock, Somerset, v.c. 5, July 18, 1922.—H. S. Thompson.

Lastrea aristata Rendle & Britten. Brook End, St. Ippolyts, Herts., June 5 & Oct. 29, 1921, Oct. 25, 1922. Two sheets gathered in June 1921 had concolorous lanceolate scales. As to these Mr. Salmon writes: "From the shape of the frond and scales I think this must go under *L. dilatata* Presl. The species does not always have the dark centre of the scales that books describe."—J. E. Little. Yes; nice specimens, but the more correct name is *Dryopteris aristata* Druce.—G.C.D. It seems to me that this has the scales of the above, and is correctly named, although the plant in *facies* resembles *spinulosa*.—A.B.

Chara vulgaris L. Iver, Bucks, July 1922.—W. R. Sherrin. A very slender graceful form.—J. Groves.

C. ——— Pond, Ickleford, Herts., Aug. 29, 1922.—J. E. Little. A slender form of *C. vulgaris* var. *longibracteata* Kützing. —J. Groves.

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J. Walter White, F.L.S., Warnham, Woodland Road, Clifton, Bristol.

Miss M. C. Williams, Girls' Grammar School, Hitchin.

Edward A. Wilson, F.L.S., Southey House, College Green, Bristol.

Lt.-Col. A. H. Wolley-Dod, Berkeley Cottage, Mayfield, Sussex.

HONORARY MEMBERS.

Arthur Bennett, A.L.S., 5, Thanet Place, Croydon.

Rev. E. F. Linton, M.A., Bealings. Southbourne-on-Sea, Hants.

APR 1923
BRITISH MUSEUM (NATURAL HISTORY)

Vol. III., No. 7.

THE

FORTIETH ANNUAL REPORT

OF THE

WATSON

Botanical Exchange Club

1923—24.

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H. W. PUGSLEY, B.A., F.L.S., 81, Alexandra Road, Wimbledon, S.W. 19.

Rev. H. J. RIDDELSDELL, M.A., Bloxham, Banbury.

CHARLES E. SALMON, F.L.S., Pilgrims' Way, Reigate.

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THE WATSON

Botanical Exchange Club

REPORT FOR 1923—24.

List of Contributors.

	Sheets.		Sheets.
W. C. Barton ...	... 413	Miss I. M. Roper	... 126
S. H. Bickham ...	... 70	C. E Salmon ...	... 19
Preb. R. J. Burdon	... 59	H. S. Thompson	... 256
A. J. Crosfield ...	... 52	J. W. White ...	... 115
L. B. Hall ...	... 93	Nat. Mus. of Wales	... 70
J. E. Little ...	... 194	S. Lond. Bot. Inst.	... 120
St. J. Marriott ...	... 57		
W. H. Pearsall ...	... 64	Total ...	...1757
H. W. Pugsley ...	... 49		

The number of sheets sent in for distribution this year, although approximately equal to the number contributed in 1921—22, is 978 less than last.

On the whole the specimens were well preserved, some being models of what botanical specimens should be.

Critical genera, and the varieties and forms of our commoner plants, might, very profitably, receive more attention, several of the former being either entirely absent, or represented by a single gathering only.

In addition to those sent to contributing members, fourteen parcels have been sent to non-contributing members and others, including the British Museum, Cambridge, Dublin, Bergen, and Stockholm. 278 sheets of Continental plants received from Mr. C. C. Lacaita and Mr. J. W. White have also been distributed. The thanks of members are due to the following for notes on the contributions: Mr. E. G. Baker, Prof. A. Henry, Mr. A. Bennett, Mr. J. Fraser, Mrs. Gregory, Mr. A. B. Jackson, Mr. C. E. Salmon, Mr. H. S. Thompson, Mr. C. E. Britton, Lt.-Col. A. H. Wolley-Dod, Mr. H. W. Pugsley, Mr. W. H. Pearsall, Mr. W. C. Barton, Mr J. E. Little, Miss I. M. Roper, Mr. W. R. Sherrin, Mr. J. W. White, and others.

A. E. WADE, *Distributor.*

National Museum of Wales,
Cardiff.

We are most grateful to Mr. A. E. Wade, of the Department of Botany, National Museum of Wales, Cardiff, for acting as Distributor last winter, and for drafting the body of the Report, which he kindly had type-written. We must also thank Mr. Hyde and the Committee of his department for allowing the work to be done at their Museum.

The Club is indebted to Mr. Lacaita for the gift of some old Spanish plants, and others from the district of Naples, from the herbarium of the late Prof. G. H. Pasquale. Also to Mr. White for Continental duplicates of his own and the late C. Bucknall's collecting. The great majority which remained over from Dr. Lindman's consignment of Scandinavian specimens were distributed by me last summer among the more interested and deserving of the members and subscribing institutions, who had expressed a desire to receive some.

This year we received no parcel from Stockholm, but in May the long expected parcels from Mr. Holmboe, of Bergen, reached me, and they have been similarly dealt with. Owing to important official and other duties they could not be sent earlier from Bergen. They proved a very interesting and well set-up lot, chiefly from the northern parts of Norway. With few exceptions they were in quite small series, but a nominal 350 were suitably converted into about 413 sheets of excellent specimens.

A special vote of thanks should be expressed to Mr. Little, who again sent a fine series of chiefly woody plants, selected and dried with great judgment, and with very careful and useful notes upon these and others. Mr Little wrote: "The whole question of *Juncus conglomeratus* wants revision. A large proportion of the plants so named in Herb. Mus. Brit. are not this, but *J. effusus* var. *compactus*. . . . . Messrs. Baker and Salmon want *Erodium* material; they have not yet finished studying the inland forms."

With the exception of one *Carex* of which 8 sheets were sent by myself (not again mentioned in the Report) it would appear that this large and interesting genus was totally unrepresented. Can no one collect some of the northern species?

A new member should realise that it is more important to state the County on his labels than merely the number of H. C. Watson's "V.C."

Owing to the fact that Mr. Goode discovered a parcel of thirty-three sets of the last Disiderata List, in March these were put into fresh covers, and after the list had been roughly emended, particularly by eliminating some rare orchids, and other plants that should not be gathered in quantity, or which had recently

been contributed, they were posted to the more active collectors, and to all the newer members. Any suggestions about a future Desiderata List will be thankfully received.

A few Scotch and Irish members are especially needed, but we welcome eight fresh subscribers, several being introduced through the energy of Mr. Sherrin.

On going to press we deeply regret to hear of the death on June 2nd, of Mr. Edw. A. Wilson, of Bristol and Birmingham: a very remarkable, unselfish, and modest man. An Appreciation which appeared on June 4th in the two Bristol morning journals, may be quoted here. Strenuous business and other calls prevented Mr. Wilson from contributing specimens since he joined our ranks. We are indebted to Mr. J. R. Matthews, M.A., of Edinburgh, for kindly writing an excellent notice of the late Wm. Barclay; and to Mr. Britten for allowing the reproduction of a short note on our old member, Hy. T. Mennell.

H. S. THOMPSON, *Hon. Sec.*

Report 1922—23, p. 218.—*Centaurea nemoralis*, var. *nevadensis*.—Coll. Miss Roper. "Coming under my var. *subintegra* of *C. nemoralis* Jord. I agree with Mr. Lacaita that the specimens seem intermediate between *C. nemoralis* and *C. pratensis*. Presumably it is but an individual variation of the former."—C. E. Britton.

WILLIAM BARCLAY (1846-1923).

By the death of William Barclay, which occurred with unexpected suddenness at his residence in Perth on 10th May, 1923, British Botany has sustained a loss it could ill afford, and the Watson Botanical Exchange Club one of its most helpful members.

He was born at Tulloch, near Perth, 19th March, 1846, and at the National School in that town he received his early education before proceeding to Edinburgh, where he qualified at the Church of Scotland Training College for the profession of teaching which he had elected to follow. His first scholastic appointment took him to Banffshire, and although he remained there only five years, he formed an attachment for the North which he never relinquished. In 1871 he returned to his native city as Headmaster of Watergate School, and while there he purchased his first copy of Babington's "Manual," the "Flora" he

always used. When the new and larger Western District School was erected in 1884 he was promoted to its charge, and he remained there until his retirement in 1911, having completed forty-five years of active teaching. He was an eminently successful teacher; took a leading part in all that concerned his profession, and, for many years a prominent citizen of the "Fair City," in manifold ways he earned the esteem and regard of his fellow-men.

As a field botanist of distinction Barclay was known in this country to a wide circle of friends and correspondents, while his special knowledge of the genus *Rosa* brought him into touch with numerous continental rhodologists. Naturally the bulk of his work centred round his own district of Perth, and he was intimately associated with Dr. Buchanan White in the collection of material for a "Flora" of the county. This appeared as White's "Flora of Perthshire," in 1898, four years after the death of the author. The volume was prepared for publication by the late Prof. J. W. H. Trail, whose acknowledgment of the help he received from Barclay is stated in the Introduction.

Barclay's first contribution to Perthshire Botany was an account of the plants of "Woody Island"—in the river Tay above Perth—published in 1887 in the Transactions of the Perthshire Society of Natural Science, a society in which he always took a prominent place, being president for eleven years. This early paper was followed by others on the "Flora" of the Tay basin, and in 1912 he issued (Proc. Perth. Soc. Nat. Sci.) a useful supplement to the "Flora," giving the additions to the county list for the preceding twenty years.

There have been field botanists with a greater number of "discoveries" to their name; these attractions made little appeal to William Barclay. He never went into the field in search of them. The discovery of two plants, however, stands to his credit: *Poa palustris* L. in the marshes of the Tay in 1889, and the hybrid *Potamogeton venustus* Baagöe in the Earn in 1915.

Barclay's special work concerned the genus *Rosa*, on which he became an acknowledged authority, but he was not of the school of "splitters." Not that he failed to make a minute study of this polymorphic genus, but rather, perceiving so much individual variation, he found it impossible to define limits, unless, indeed, individual plants themselves were to be accepted as such. And this was the criticism he made of much of the continental work on the genus,—that authentic specimens collected by the authors themselves neither agreed with the original description nor with one another. From the vast amount of Rose material

he collected, he described as new only one form, *subcoriifolia*, a variety of the aggregate *R. coriifolia*. His account appeared in Ann. Scot. Nat. Hist., 1899, and other papers on Scottish Roses may be found in the same Journal for 1896.

In every way Barclay's botanical work was marked by a painstaking endeavour to reach the truth. One finds evidence of his extreme caution in his short notes on specimens submitted through this Exchange Club, of which he was a member, and a Referee on Roses since 1907.

His visits to the South were infrequent, but he was known to many who visited him in his home in Perth as one possessing the gift of kindness, ever ready to assist the beginner or others who sought his help. He was a true Scot, fond of his native Scotland, fonder still of his native Perthshire. In the open field he was veritably happy, and it was there that one got to know him at his best.

Barclay was elected A.L.S. on 3rd May, 1923, an honour of which he was extremely proud. How pathetic that he should have enjoyed it for but one short week! His wife died only a few months before, and very greatly he felt the loss of one who had been a life-long companion.

J. R. Matthews.

HENRY TUKE MENNELL (1835-1923).

By the death of H. T. Mennell on December 9, 1923, we lose yet another Quaker naturalist, who gained his inspiration and early training at the well-known Friends' School at York, which celebrated its centenary last June, where he was the oldest Bootham Scholar alive, having been born at Scarborough in 1835.

For many years Mennell was a prominent and useful member of the Society of Friends (his mother was a Tuke); he took a particular and very practical interest in education, and was successively secretary, chairman, and treasurer of the Friends' Education Committee. Before he left Newcastle in 1861, where incidentally he was secretary of the Northumberland and Durham Nat. Hist. Soc., his collections of English shells and herbarium of British flowering plants were already excellent and fairly complete. However, when the Watson Bot. Exch. Club was started in 1884 he became a member, and remained so until 1918. A few notes were contributed by him to the *Journal of Botany* many years ago, but he published little else of botanical interest. As long ago as 1863 he became F.L.S., retiring only in 1923.

Mennell's happy union with Maria B. Newman, daughter of Edward Newman, the entomologist and fern-lover and editor of the *Phytologist*, doubtless increased his friendships among naturalists, and more and more his many services to humanity became evident. In 1861 he took over the tea business in London of Tuke & Co., founded in 1725, and Mr. and Mrs Mennell settled at the Red House, Croydon, where in later years the charm of his beautiful alpine rock-garden was shared with many.

In 1865 Mennell joined the Alpine Club, and many of his early climbs were done with his old schoolfellow the late Dr. R. Spence Watson. It may almost be said that he introduced to English people Fionnay in the beautiful Val de Bagnes, for his later Swiss holidays for fifteen successive years were spent in that district, and he and his family were often accompanied by friends able to join the party. His enthusiasm for the mountains and the flowers was contagious, and he endeared himself to all, and especially to his guides. I was struck by this in August, 1904, when I chanced to be at Fionnay. Three years later, in his 73rd year, he made his last ascent of a 12,000-feet peak in the Combin range. During the British Association meeting in Canada in 1884, Mennell and Macoun, head of the Canadian Geological Survey, were the first white men to penetrate the Yoho Valley, now so famous in the Rockies. Upper Teesdale was one of his favourite English haunts, and in middle life he visited it repeatedly. Among his life-long friends were the late Alfred Russel Wallace and J. Gilbert Baker.

Mennell's herbarium has been presented to Mr. C. E. Salmon.

H. S. Thompson.

[*From* The Journal of Botany, *March*, 1924.]

EDWARD A. WILSON (1858—1924).

[An Appreciation.]

That remarkable personality, Edward A. Wilson, F.L.S., whose death occurred on Monday, June 2nd, was better known in Birmingham than in Bristol; for since 1890 his active life was mostly spent in and around the Midland metropolis, where he had been a respected City Councillor, a member of the Board of Guardians, Master of his Masonic Lodge, and founder and chairman of New-Hudson Limited.

Some eight years ago he moved to Bristol, and eventually bought Southey House, College Green, his intention being to retire from business at an early date, but circumstances were such that his fellow-directors induced him to continue his active and valuable help at a somewhat difficult time. This strenuous life prevented Mr. Wilson from being seen at meetings of various Bristol societies so frequently as a few years ago, when he sometimes attended lectures at the University and meetings or excursions of the Naturalists' Society and Field Club. He was one of the founders of the Bristol Field Club, and the first assistant secretary.

Particularly interested in botany, microscopy, and gardening, he was elected F.L.S. last year. In Birmingham he had shown the same keen interest in natural history, geology, and topographical matters. Meeting him first at a course of botany lectures at the University of Bristol, it gradually became evident that Wilson was a man of outstanding intellect, clear exposition, and seeking every avenue to truth. He had travelled over the world, taught himself French and German, and was a great lover of books and all things beautiful.

Though his father was Assistant in the Department of Humanity at the University of Edinburgh Edward was practically self-educated, for he had the misfortune to lose both parents when about thirteen years of age. As a man he was a great example of unselfishness, devotion to hard work, extreme modesty, steadfastness of purpose, wide sympathies, spontaneous hospitality, and generosity in helping many a worthy cause with both time and money. Above all he will be remembered as a diligent seeker after truth—in both biological and mechanical science, in religion, in politics—and for his little acts of kindness. For deceit and sham, and all unfairness, especially in the world of commerce, for "high-brow" ways and "superior" persons he had a supreme contempt.

Formerly a Conservative and Anglican Churchman, his views became less and less circumscribed, so that latterly we saw him founding and acting as hon. secretary of the Laymen's League, and supporting generally the Unitarian body, and Lewin's Mead Church in particular. His letters are models of concise and yet adequate expression, and often indicate his characteristic modesty and love of justice, and his ever willingness to help those less fortunately placed or those equally anxious to find the light.—

H. S. T.

Anemone nemorosa L., var. *purpurea* DC. Beech Wood, Lansdown, W. Glos., v.c. 34, April 24, 1923. In great quantity. Flowers more or less purple on both sides.—H. S. Thompson. Should not var. *purpurea* be reduced to a colour-form, together with a much scarcer var. *coerulea* DC. ? As a boy I once gathered the latter near Tonbridge, in Kent (see "Gardeners' Chronicle," April 23, 1881, p. 539), and have specimens in my herbarium. Dr. E. J. Salisbury ("Annals of Botany," XXX, No. CXX, October, 1916), after study of Hertfordshire *A. nemorosa*, proposed two new varieties: var. *robusta*, having petals broadest above the middle: var. *apelata*, analogous to *Ranunculus auricomus* var. *depauperatus*, having small incompletely developed perianth segments.—J.E.L. This is only a colour-form of type. The inner side of the sepals shows too much white, and lacks the intense purple of var. *purpurea* DC.—I.M.R.

Ranunculus acris L., var. *Boraeanus* (Jord.)—Meadow at Moorend, W. Gloucester, v.c. 34, June, 1910. Coll. C. Bucknall. The specimens represent the variety very fairly, although they have suffered to some extent from long storage.—J. W. White.

R. chaerophyllus Linn. Origin: Near St. Aubin's Jersey, Cult. Ledbury, June 4, 1923.—S. H. Bickham.

Fumaria muralis Sond., var. *cornubiensis* Pugsley (nov. var. ined.) [No. 284]. Near Tregony, W. Cornwall, September 19, 1922. This plant was first sent to me from Tregony by Miss E. S. Todd, of Exeter, and very shortly afterwards I visited its habitat, where I saw it growing abundantly over nearly a square mile. It differs from all the known forms of *F. muralis* by its essentially pale corollas with strongly dilated apices to the two outer petals. A description of it is embodied in a general paper on the genus, written in the winter of 1922—23, which has not yet been published owing to unsettled queries in connection with certain foreign species. As the account of this plant cannot appear until next autumn, I append the following abbreviated diagnosis to render valid the new varietal name:—Varietas typi habitu foliis fructibusque sed corollæ pallide lilacinæ petalis superiore latiore obtuso inferiore marginibus apice plus minusve dilatatis subspathulatis.—H. W. Pugsley.

F. neglecta Pugsley. (As subspecies) [No. 285]. Ponsanooth, W. Cornwall, September 20, 1922. I discovered this plant in September, 1907 (*vide* "Fumaria in Britain," p. 20), and pointed it out to the late F. H. Davey, who gathered a set of specimens which were distributed through this club during the following

winter. He also sent me the same autumn, what appeared to be an identical form from Truro. As the plant was subsequently lost sight of, I revisited the locality in September, 1922, and succeeded in refinding it, still with *F. Martinii* Clav., in or very close to the original station. On this second occasion it was much less rare than *F. Martinii*.—H. W. Pugsley.

Matthiola sinuata L. S. Ouen's Bay, Jersey, June 16, 1923. —W. C. Barton.

Alyssum incanum L. Quarry, Dartford Heath, Kent, v.c. 16, June, 1923.—St. J. Marriott.

Brassica Cheiranthus Vill. Bel Royal, Jersey, June 13, 1923. Sent for sake of finely developed root-leaves, otherwise too young.—W. C. Barton.

Coronopus didimus Sm. Under a wall near Walton-by-Clevedon, Somerset, July 7, 1903.—J. W. White.

Thlaspi alpestre L. Broken ground, Winterhead, N. Somerset, v.c. 6, May 15, June 1, 1922.—H. S. T. This has much the habit of the Winch Bridge *Thlaspi* which Baker stated had been confirmed by Boreau as *sylvestre*. It has the same ± entire long petioled root-leaves and long lax fruiting spike, but in both Mr. Thompson's plant, and in my own Winch Bridge gathering, the ripe silicle is not like that described and figured by Jordan as his *sylvestre*. It is, however, at any rate, not *occitanicum*, which is a glaucous plant, with a shorter more denser fruiting raceme.—C.E.S. Many of the plants, particularly in the higher ground about Shipham, are very glaucous, and these are usually with a shorter fruiting raceme. It is probably merely an ecological state. *T. alpestre* in this interesting Somerset outlier appears more abundant than formerly.—H.S.T.

Viola canina L. *alba* = *V. nemoralis* Jordan. Shapwick Peat Moor, Somerset, v.c. 6, May 20, 1923.—H. S. Thompson. Forma *alba* of var. *ericetorum* of *V. canina*. It has been reported to me from two localities near Clevedon, and I have found it in some plenty on the peat at Shapwick. It was also sent me some years ago, by Mr. Stuart Thompson from the collection of the late Mr. T. Clark. It is noticed on p. 77 of "British Violets," and there is a good sheet of it in my collection at South Kensington. —E. S. Gregory. It would be interesting to know what Mrs. Gregory makes of *V. nemoralis* Jordan, not mentioned in her "Brit. Violets." Mr. White ("Flora of Bristol," 177) refers to this pure white form on Walton Moor, near Glastonbury, men-

tioned by Collins and Clark in "New Bot. Guide," in T. Clark's "Cat. of Rarer Plants of the Turf Moors of Somerset," and cultivated by him in 1822; and White adds, "this plant . . . . agrees well with *V. nemoralis* Jord. as described by Rouy et Foucaud" Comparing many plants, May, 1924, with the blue form with which it sometimes grows (though more frequently the white violet is alone, both on the marsh and some of the drier droves), I observe that the pure white plant is more caespitose, more floriferous, the leaves rather thicker, smaller, blunter and less triangular, distinctly less crenate, some being actually entire. Its remarkable floriferous and other characters persist under cultivation, as I observed on May 16 in Mr. Hy. Corder's garden at Bridgwater.—H.S.T. (See p. 271.)

V. Kitaibeliana R. & S., var. *nana*, (Godron). [648]. Quenvais, Jersey, June 14, 1923.—In St. Brelade's Bay I found plants growing among Marram grass to the height of eight inches, and others are indistinguishable from the plant of S. E. Europe, of which Herb. Brit. Mus. has a good series. On the sands close by the dwarfed f. *nana* occurs. On the Quenvais, even at this late date, a great number of plants from three to four inches high were many of them still in flower; these agree in all respects but their stunted growth. In exposure the plant is darker coloured, and the corolla more usually purple, but there seems to be no room for doubt that the so-called variety *nana* is merely a growth form. In Herb. B. M. I have seen a cultivated specimen of considerable size, grown in hort. Bournemouth by E. F. Linton, from seed of the dwarf form.—W. C. Barton.

Silene Armeria Linn. Self-sown on the outskirts of garden near Ledbury, Hereford, June 28, 1923. Never grown in the adjoining grounds.—S. H. Bickham.

Moenchia erecta Gaertn. Siston Common, Mangotsfield, W. Gloucester, v.c. 34, May 22, 1922.—I. M. Roper.

Arenaria serpyllifolia L., var. *viscidula*, Roth. mixed with var. *scabra* Fenzl. Berrow Sandhills, Somerset, N. v.c. 6, June 7, 1923.—H. S. Thompson. Yes, but not very strong.—C.E.S.

Spergula sativa Boenn. Cultivated ground, Dolgelly, v.c. 48, August 18, 1923.—W. C. Barton.

Spergularia diandra Boiss. var. *atheniensis* H. & S. [650]. Roadside, Bel Royal, Jersey, June 13, 1923. In considerable quantity on the gravel of the new sea front, which was at one time thought to have exterminated it. Also on walls, etc., at St. Aubyn's.—W. C. Barton.

Montia fontana L. var. *intermedia* Druce. Dolgelly, Merioneth., v.c. 48, August 15, 1923.—W. C. Barton. Yes; *M. chondrosperma* Fenzl. var. *intermedia* Beeby.—C.E.S.

Hypericum Desetangsii, Lamotte. Origin: Near Lewes, Sussex, 1916.—C. E. S. Cult: Winchmore Hill, August 5, 1923. —L. B. Hall. Yes; nicely preserved specimens. Frohlich ("Sitzungsber. Kais. Akad. Wiss." CXX, V heft, abth. 1, 1911) considers *H. Desetangsii* Lam. to be the hybrid *H. maculatum* × *perforatum* and *H. Desetangsii* var. *imperforatum* Bonnet to equal *H. maculatum* var. *erosum* Schinz. Schinz, however, maintains *H. Desetangsii* as a good species.—C. E. Salmon.

Geranium purpureum Vill. [688]. Among gorse, Quenvais, Jersey, June 12, 1923. The true *purpureum* Vill., emend. Jordan. In the shade of a wood at St. Peter's the plant was as green as *G. Robertianum* under similar conditions.—W. C. Barton.

Falcatula ornithopodioides. Newquay, Cornwall, v.c. 2, June 4, 1905.—C. C. Vigurs. Comm. S. Lond. Bot. Inst.

Medicago minima Bartal. Near Rye, E. Sussex, v.c. 14, May 24, 1906.—A. O. Hume. Comm. S. Lond. Bot. Inst. More accurately stated as of (L.) Bartalini, though the authorities given for the name are many.—H.S.T.

M. minima Desr. [651]. S. Ouen's Bay, Jersey, June 14, 1923. Fine and plentiful on the sands, one plant fully covered a sheet 16 × 10 inches. In many cases the seed-pod is still attached to the root.—W. C. Barton. *Vide ante!*

Trifolium subterraneum L Quarry, La Moie, Jersey, June 14, 1923. A few scraps sent to show peculiar markings on the leaves, all from one plant. I found in 1912 a group of plants with the same markings on the Grand Havre, Guernsey, and have in my herbarium a specimen collected at Christchurch, Hants., in 1889 by E. F. Linton, on which the same marking is traceable.—W. C. Barton. I have seen such markings on plants near the mouth of the Colne, in Essex.—H.S.T.

T. ochroleucon Huds. Near Baldock, Herts., v.c. 20, July, 1904.—Coll. A. O. Hume. Comm. S. Lond. Bot. Inst.

T. squamosum L. Uphill Marsh, N. Somerset, v.c. 6, July 9, 1923. Frequent on grassy sea walls, but not below.—H. S. Thompson. Also from Newhaven Sussex, v.c. 14, July, 1907.— Coll. A. O. Hume. Comm. S. Lond. Bot. Inst.

T. arvense L. Close prostrate on bare rock, but obviously only a growth form of the type. S. Catherine's, Jersey, June 15, 1923.—W. C. Barton. More silky than usual, arising from the plant needing protection against injury from the excessive heat on bare rock.—I.M.R.

T. strictum L. [653]. La Pulente, Jersey, June 17, 1923. Plentiful in a hayfield, and growing to the height of the mowing grass, a contrast to the dwarfed coast plant.—W. C. Barton. Mine is *T. glomeratum* L., and Mr. White tells me that *T. strictum* was sent by Mr. Barton to the other club, so perhaps there was a confusion of labels.—H.S.T. There appears to have been a mixture of specimens, as mine is *T. strictum*.—A. E. Wade. My sheet is certainly *T. glomeratum* L. differing widely from *T. strictum* in habit, sessile heads and the curious ovate reflexed calyx-teeth which are very characteristic.—J.W.W.

Anthyllis Vulneraria L. (**1**) Normal colour with pale yellow calyx. (**2**) Calyx tipped with dark purple. Growing together on limestone slope, near Shipham, Somerset, N. v.c. 6, June 27, 1923.—H.S.T.

Lotus hispidus Desf. Hannafore Pt, Cornwall, v.c. 2, August 9, 1900.—Coll. A. O. Hume. Comm. S. Lond. Bot. Inst.

Vicia tetrasperma Moench. var. *tennissima*. Henfield, Sussex, v.c. 14, July, 1907.—Coll. T. Hilton. Comm. S. Lond. Bot. Inst. My two specimens are *V. tetrasperma* (*V. gemella* Crantz.); the leaflets are not "long, narrow, acute" compared with ordinary specimens, moreover some of them are mucronate. I fail to see any constant character in the var. *tennissima* Druce, and there is a specimen of *tetrasperma* in my herbarium with very long, narrow, and acute leaflets, but some of these are mucronate, and there are two flowers on one of the stems.—H S.T. Leaflets not nearly acute enough to come under this variety, which simulates in foliage *V. gracilis*.—C. E. Salmon. The long pedicels of *V. tetrasperma*, var. *tenuissima* suggest the possibility of its being a cross with *V. gracilis*. I had not seen it before.—A. J. Crosfield.

V. lathyroides L. Berrow Golf Links, N. Somerset, v.c. 6. In grassy place, mixed with and hybridising with *V. angustifolia*, June 7, 1923.—H. S. Thompson. My sheet is *V. angustifolia*, as is clear from the gibbous base of the calyx: the seeds, too, are sufficiently advanced to show the long hilum and absence of tubercles.—W. C. Barton. I believe the others were correct.—H.S.T.

Lathyrus Aphaca L. Par, Cornwall, v.e. 2, June 25, 1901.—A. O. Hume. Comm. S. Lond. Bot. Inst. First recorded in Britain in 1632, from about Dartford, Kent, and a colonist of "English" type according to H. C. Watson; this is remarkably rare west of Somerset, though very widely spread over continental Europe. In Ireland it has appeared as a casual near Cork and Belfast.—H.S.T.

Prunus insititia L. Chichester, W. Sussex, March 31, June 13, 1923.—R. J. Burdon. I agree. The size of the leaves, their serratures, the dense pubescence along the midrib beneath, the size of the petals, and the pubescent peduncles, often in pairs, make this typical *P. insititia*.—J. Fraser. Yes, the pubescence on the peduncle is evident, and the velvety clothing on the shoots of 1922 is persistent. The anthers were apparently pure yellow. I would suggest for observation the colour of the anthers in the three species (if they are really separable). So far as my present observation goes, those of *P. spinosa* and *P. domestica* are more or less tinged with orange-red. Is spinosity of real value as a distinctive character? In *Pyrus Malus* it is only a growth condition. Large old bushes of *P. spinosa* can be practically spineless, at least above, or they can be extremely spinose.—J. E. Little. I believe so.—C. E. Salmon.

Spiraea salicifolia L. Hedgerows, etc., Llangower and Llanuwchllyn, Merioneth., v.c. 48, August 9, 1923.—W. C. Barton. When was this N. American and Eastern European shrub introduced into Britain, and why is it chiefly found in the *North and West*, and in Ireland as a denizen? (Wales, Cornwall, S. Devon near Plymouth, and in Scotland). Babington says nothing to doubt its nativity. Smith says, "Mr. G. Don assures us that it is wild in Scotland." Wm. A. Clark omitted it from his "First Records of Brit. Plants." An ecologieal study of its present distribution in Britain would be interesting. Is it native in Europe at all? Sir J. D. Hooker gave Arctic Europe ("Stud. Fl."), but Fries ("Summ. Veg. Scand.") said in 1846, "Advent. sed pl. l. vere inquil."—H.S.T.

Rubus caeresiensis Sudre. var. *integribasis* Rogers [1003]. Neighbourhood of Portmadoc, Carnarvon, v.c. 49, Aug. 24 and Sept. 15, 1922.—W. C. Barton. In quantity all around Portmadoc, v.c. 48 and 49, August and September, 1922. Also seen in 1923 near Dolgelly, v.c. 48.—Barton and Riddelsdell.

R. hesperius Rogers [1002]. Tremadoe, Carnarvon, v.e. 49, Sept. 15, 1922.—W. C. B. At one loeality in quantity: Tre-

madoc v.c. 49, August and September, 1922. Not exactly the Irish plant, but nearer it than is the Bangor plant placed here by Rogers (W.C.B.).—Barton and Riddelsdell.

Alchemilla arvensis Scop. Attenuated form with long internodes. On Pennant sand, in full sun. Near Keynsham, N. Somerset, May 28, 1922.—H. S. T.

A. minor Hudson. Upland slope near Shipham, N. Somerset, v.c. 6, June 27, 1923. So named in the last report.—H. S. Thompson. Yes, certainly.—C.E.S.

Rosa ——— ? Border of wood, Halling [E. Kent, v.c. 15], June 1, 1923.—I. M. Roper. *R. Sabini*, one of the *spinosissima* × *tomentosa* hybrids. It is known from Halling as *R. Doniana* Woods, which I now make synonymous. The station is in W. Kent, v.c. 16, not E. Kent.—A. H. Wolley-Dod.

? *R. dumetorum* Thuill. Hedgebank, Oldbury-on-Severn, W. Gloucester, v.c. 34, Sept. 5, 1923.—I. M. Roper. This is a variety of *R. dumetorum*, but its leaflets are too thinly pubescent for the type, and its styles are subglabrous. It is nearest to *R. canina* var. *calophylla* Rouy, which I make a variety of *dumetorum*. It seems to be a rare form in Britain.—A. H. Wolley-Dod.

R. stylosa Desv., var. *pseudo-rusticana* Crépin. Glade, Spaniorum Hill, Hallen, W. Gloucester, v.c. 34, June 29, fruit Sept. 22, 1923. Flowers pale pink.—I. M. Roper. This is a good form of var. *systyla*. It will not do for var. *pseudo-rusticana*. Its midribs are hairy, and its leaf-toothing not coarse enough. If the flowers were white it would be *f. leucochroa* (*R. leucochroa* Desv., non auct. angl.).—A. H. Wolley-Dod.

Crataegus oxyacanthoides Thuill., var. *eriocalyx* Druce. Darenta Marshes, Kent, v.c. 16, April 1923.—St. J. Marriott. The leaves point to this species, but the smaller flowers, hairy calyx and (in some cases) only 1 style, lead me to suggest *oxyacanthoides* × *monogyna*.—C.E.S.

Lythrum Hyssopifolia L. St. Catherine's Bay, Jersey, June 15, 1923.—W. C. Barton.

Epilobium hirsutum × *parviflorum*. Helpstone, Northants, Aug. 1916. Coll. A. R. Horwood. Comm. Nat. Mus. of Wales. I think this is only *E. parviflorum*. I have just such specimens that Prof. Hausknecht (the Monographer of the genus) when sent to him as the ×, named "*E. parviflorum* only." —A. Bennett. Hausknecht ("Monograph" p. 64), says of *E. hirsutum* × *parviflorum*: "Easily distinguished from both species

by the teeth of the leaves; these in *E. parviflorum* are very small and remotely spaced, forming a short erect callosity; but in *E. hirsutum* are found larger and smaller teeth standing much closer together, more deeply sinuate, with a point curved forwards, and thus appearing almost hooked; in the hybrid the margin is slightly sinuate, somewhat more deeply and closely cut than in *E. parviflorum*, and the callose slightly elongated teeth are more bent forward." Applying this description to Mr. Horwood's plant, larger and smaller callosities are found intermixed, and some of the projections are directed slightly forward. The flowers are not larger than those of *E. parviflorum*. The seeds are apparently well filled, and are somewhat narrower in proportion than those of *E. parviflorum*, inclining below to the oblong acute of Babington for *E. hirsutum*.—J. E. Little.

Bupleurum aristatum Bartl. Quenvais, Jersey, June 14, 1923. —W. C. Barton.

Aethusa Cynapium L., var. *agrestis* Wallr. Stubble field, Dernford Farm, Cambs., Sept. 19, 1923.—A. J. Crosfield. I believe correctly named and a sound variety.—C.E.S.

Dipsacus pilosus L. Fox's Wood, Brislington, Bristol, N. Somerset, v.c. 6, Aug. 21, 1923. Root leaves well developed.—I. M. Roper.

Chrysanthemum Leucanthemum L. Pasture near Alveston, W. Gloucester, v.c. 34, June 16, 1923. This form with tubular florets only is persistent, and is discussed in "B. E. C. Report," 1920, p. 230.—I. M. Roper.

Doronicum Pardalianches L. By the Chew, near Chew Magna, N. Somerset, v.c. 6, May 16, 1923.—I. M. Roper.

Senecio aquaticus, var. *pinnatifidus* G. et G. Near Llyfnant Valley, Montgom., v.c. 47, Aug. 13, 1923.—W. C. Barton. Looks right; I presume Mr. Barton satisfied himself as regards the lower leaves (wanting in my specimen) which should be lyrate and not entire (toothed or crenate) as in the other form which passes as type.—C.E.S. The specimen sent does not show the characteristic lower leaves, but the small lateral segments of the cauline leaves, and the elongate panicle point to the variety.—H. W. Pugsley.

Centaurea nemoralis Jord., var. *diversifolia* C. E. Britton. Roadside between Linton and Hildersham, Cambs., Sept. 18, 1923.—A. J. Crosfield. If you are disposed to question the varietal name assigned to the specimens, then you are justified, for the

name "*diversifolia*" can scarcely be applied to plants where, apart from size, the leaves show such an agreement in shape, taking the lowest stem-leaf to the uppermost one. *Diversifolia* denotes a form with conspicuously pinnatifid stem-leaves and unlobed branch-leaves. In these Cambs. specimens it seems to me that there is no distinction in shape between the stem-leaves and rameal-leaves, and I should not hesitate to name them var. *subintegra*.—C.E.B. [Unfortunately, Mr. Lacaita left for Italy this spring without sending his notes.—Hon. Sec.]

Hieracium Peleterianum Merat. Cliffs, La Moie, Jersey, June 12, 1923.—W. C. Barton. The plant received is a somewhat slender shade form, but is no doubt correctly named. It is easily distinguished from *H. pilosella* by the absence of long, prostrate stolons with leaves decreasing upwards. The long shining hairs on the upper leaf-surfaces and the villous eglandular involucre are also characteristic.—H. W. Pugsley.

H. pulmonarioides Vill. Alien; long established on wall at Richmond Hill, Clifton, Bristol, v.c. 34, July 6 and 20, 1923. Flowers small after drought.—H. S. T.

H. cambricum F. J. H. Origin: Great Orme's Head. Cult: Ledbury, June 8, 1923. Seeds freely on my limestone rockery. —S. H. Bickham. Well-dried garden specimen of this very distinct Hawkweed, which is remarkable and almost unique in the genus for its nearly glabrous stems and foliage.—H. W. Pugsley

Taraxacum lacistophyllum Dahlst. Dartford Heath, Kent, v.c. 16, June 1923. Teste G. C. Druce.—St. John Marriott.

Limonium recurvum C. E. Salmon. Sea-cliff, Isle of Portland, Dorset, Sept. 13, 1923. The story of this remarkable plant and its long-continued confusion with *S. Dodartii* Gir. was fully told by Mr. Salmon when describing and figuring it as a new species in "Journ. Bot." 1903. My earliest gathering is dated 1865, though I remember seeing some of it a year or two earlier in the hands of Mr. Henry Groves, of Weymouth and Florence, who subsequently studied Sea Lavenders on the Mediterranean coasts. In 1886 I sent specimens to the Bot. Exchange Club, with a note (Rep. p. 155) based on the then accepted opinions of Babington, Boissier, and Hewett Watson, now untenable. I must also withdraw the assertion that this was the only *Statice* known in Portland, made in ignorance of the presence of *binervosum* on the East Were. It may not be generally known that Babington never went to Portland, and that when T. B. Flower took Syme there they missed the spot, and did not see *recurvum*. As stated

by Salmon (*loc. cit.*) it was found in 1902 that the original locality had been destroyed. In *Trans. Dorset Nat. Hist. and Antiq. Field Club*, XXXIII, 1912, however, W. B. Barrett, who was intimately acquainted with the flora of Portland, reported that *L. recurvum* was still in existence; and it is from quite another portion of those spray-swept rocks that I gathered the sheets now contributed, taking only roots that the next storm would have dislodged. On the extreme margin of the old site I found one strong plant, an encouraging survival, but I fear there can be little chance of its spreading. There is real danger now-a-days that among the trippers brought into Portland by motors and char-à-bancs some may spy the attractive flowers of our rarity and bring it to an end. Riddelsdell (Rep. B.E.C. 1914) thought he had *binervosum* growing with *recurvum*, and that may have been so. For although at the date given (July 14) the plants must have been immature and untypical, and in none of my visits have I found the two together, yet Barrett (*loc. cit.* p. 102) says that "in Portland it is intermixed with *L. binervosum*."—J. W. White. A beautiful sheet of this extraordinary local plant; so far I have seen no examples from abroad.—C.E.S.

Statice plantaginea All. St. Ouen's Bay, Jersey, June 16 1923.—W. C. Barton.

Myosotis versicolor Sm., var. *pallida* Breb. St. Brelade's Bay, Jersey, June 12, 1923.—W. C. Barton.

Cuscuta Trifolii Bab. Roadside bank, Shirehampton, Bristol, W. Gloucester, v.c. 34, Aug. 30, 1923.—I. M. Roper.

Mimulus moschatus Dougl. Ceinws, Corris Valley, Montgomery, v.c. 47, Sept. 3, 1923.—W. C. Barton. A N. American species.

Veronica Anagallis-aquatica L., var. *anagalliformis* (Bor). Helpston, Northants., Aug. 1916. Coll A. R. Horwood. Comm. Nat. Mus. of Wales. ? *V. Anagallis* L. restricted, var. *glandulosa*. See B.E.C.R. 1911, p. 27. Fruit with narrow notch at apex. Pedicels ascending. Inflor. long and dense. What colour were the flowers?—J. E. Little.

Euphrasia. Lurgashall, Sussex, Aug. 3, 1923.—R. J. Burdon. Young *E. nemorosa*, var. *ciliata*.—W. H. Pearsall. 'Strict' form or variety of *E. nemorosa* Mart., with apparently quite glabrous foliage and calyces less accrescent than usual.—H. W. Pugsley.

E. scottica Wettst. [No. 404]. Between the Manses, Braemar, Scotland, July 29, 1923. These specimens were gathered in the

exact station at Braemar from which this plant was originally described by Townsend under the name of *E. paludosa* ("Journ. Bot." XXIX, p. 161 (1891). It is the only species of *Euphrasia* growing in this spot, so that any variation that may be observed among the specimens can hardly be attributed to hybridity. As stated by Townsend it also occurs in other wet places around Braemar, in some of which I collected finer examples than any of those from the *locus classicus*. The plants now sent agree with the original exsiccata issued by Townsend from Braemar (F. Schultz. Herb. Norm. 2873 as *E. paludosa*). In describing *E. paludosa* Townsend contrasts it with *E. gracilis* Fr., and makes no reference to *E. minima* Jacq, although he was certainly well acquainted with *minima* in the Alps. His contrasting characters with *E. gracilis* I think hold good, except his statement of the shortness of the lower lip of the corolla. This is clearly longer than the upper lip in his original plate, and is certainly so in all the examples fresh and dried that I have seen, unless the corolla has become shrivelled in drying. I can, indeed, find no real difference, except in colour, between the corollas of *E. scottica* and *E. gracilis*, and when plants of the latter are young or unbranched, they seem to me difficult to distinguish, albeit I quite believe that the two plants, while closely related, are distinct. Wettstein, in his Monograph, p. 170 (1896) adopts Townsend's species with a necessary change of name, as *E. scottica*. His diagnosis is a translation of Townsend's description of *E. paludosa*, and at that time he evidently had no independent knowledge of the plant. He contrasts it, however, not with *E. gracilis*, but with *E. minima*, from which he states it differs in the capsule. In "Journ. Bot" XXXV, p. 426 (1897) Townsend expresses doubts respecting the capsule characters of *E. scottica*, and points out that the plant differs from *E. minima* by its narrower, cuneate-based leaves. I think this is a constant difference, and that the corolla of *E. minima*, which is nearly always more or less yellow, is smaller, and actually has an appreciably shorter lower lip. *E. gracilis* seems best separated from *E. scottica* by its slenderer, stiffer and more branched habit, its narrower, more glabrous and purpurescent foliage, its more highly coloured corolla and generally narrower capsules. The name of this plant was written *Euphrasia scottica* by Wettstein, but *E. scotica* by Townsend.—H. W. Pugsley. Excellent *E. scotica*.—W. H. Pearsall. Yes, evidently gathered on the classic spot where Townsend first collected the plant, and described and figured it, under the name *paludosa*, in "Journ. Bot." 1891, 161.—C.E.S.

Rhinanthus major Ehrh. Moira, Leicestershire, June, 1916. —Coll. A. R. Horwood. Comm. Nat. Mus. of Wales. Probably correct, but too immature for certainty.—A.B. I call this simply *R. minor* Ehrh. Corolla, bracts, etc., are all against *major*.—C.E.S.

Orobanche purpurea Jacq. La Corbière, Jersey, June 16, 1923. —W. C. Barton.

O. Ritro G. et G. [663] var. *hypochaeroides* Beck. St. Ouen's Bay, Jersey, June 14, 1923. Rather young, but in good quantity this year. I counted over thirty plants in one square yard of ground.—W. C. Barton.

O. amythystea Thuill. St. Ouen's Bay, Jersey, June 14, 1923. Plentiful in S.W. corner of the Island. This plant matches quite well Beck's figure (Mon. 230), and answers well to Babington's description.—W. C. Barton.

Mentha longifolia Huds. Boggy meadow, Linton, Cambs., Sept. 18, 1923.—A. J. Crosfield. The leaves are rather more broad-based than usual, and perhaps show a passage towards var. *nemorosa* Willd.—C.E.S. Correct, representing the normal state of the sp., but the flowering poor.—A.B.

M. piperita L., var. *vulgaris* (Sole). Swamp near a spring-head at Walton-in-Gordano, N. Somerset, Oct. 4, 1923. Gathered much too late to form acceptable specimens, but of interest as marking the continued existence of a rare plant long given up as lost. See "Fl. Brist." p. 467. Found originally by Mr. D. Fry in 1883, and cultivated by him at Corston, nothing more was seen of it until 1915, when the late C. Bucknall reported its reappearance. Now, owing to the improved condition of the ground, it seems to have a good hold. Writing in "Gard. Chron." of Oct. 28, 1922, on a recent discovery of *vulgaris* in West Gloucester, Mr. J. Fraser sketches its history and characters. The variety, however, may not be so extremely rare as is generally supposed. I see, for instance, that Dr. Druce, mentions it as being represented in his herbarium from at least five localities, neither of the above being included in his list.—J. W. White. As Sole made it a sp., the Sole should be enclosed in brackets.—A.B.

Thymus Serpyllum L. Intermediate between subvars. *linneanus* and *angustifolius* G. & G. Quenvais, Jersey, June 12, 1923. —W. C. Barton.

T. Serpyllum L., var. *angustifolius* G. et G. Bontnewydd, Dolgelly, Merioneth., v.c. 48, Aug. 8, 1923.—W. C. Barton. Aeeording to my notes the best name for this is *T. Serpyllum*, var. *angustifolius* Walls. It is not uneommon. on silieeoŭs soils, sand-hills and dry arid plaees, but appears to pass gradually into the var. *linneanus* G. et G. Intermediate forms are very eommon. —A.B.J.

T. Serpyllum L., subvar. *linneanus* G. et G. St. Ouen's Bay, Jersey, June 17, 1923.—W. C. Barton.

Prunella laciniata L. Origin: Pyrford, Surrey. Cult: Winchmore Hill, London, July 20, 1923.—L. B. Hall.

Stachys recta L. Waste ground, near Barry Doeks, Glamorgan, v.c. 41, June, 1922.—Coll. A. E. Wade. Comm. Nat. Mus. of Wales. Yes, although common in France I cannot find it recorded hitherto in our alien lists.—I. M. Roper.

Scleranthus annuus L., var. *hibernus* Reiehb. Dartford Heath, Kent, v.c. 16, June, 1923.—St. J. Marriott. This has the right habit and shoıt floral leaves of *hibernus*, but the specimens are not in frnit when the ehief eharacteristics of this variety may be seen.—C.E.S. This genus and *Illecebrum*, *Herniaria*, and *Corrigiola* are now better plaeed at the end of Caryophyllaceae.—H.S.T.

Amaranthus chlorostachys Willd. On a fowl-run, St. Philip's, Bristol, Oet. 9, 1923. Hitherto this has been regarded as a variety of *A. retroflexus*, but the well defined characters of its perianth and inflorescenee surely entitle it to be reeognised as a distinet speeies. The perigone divisions are ovate-laneeolate, aeuminate; while in *retroflexus* they are retuse and mucronate. The eentral braneh of the panicle is so far elongated as to considerably exeeed the remainder of the inflorescence. At Bristol it appears to be at least as frequent as *A. retroflexus*. I have come aeross an exeellent key to the Amaranths of Western Europe in the *Bolletimda Sociedade Broteriana*, Coimbra.—J. W. White.

A. deflexus L. Roadside, Hastings, E. Sussex, Aug. 3, 1923. —L. B. Hall.

Chenopodium polyspermum L., var. *cymosum* Moq. Winehmore Hill, Middlesex, Sept. 6, 1923.—L. B. Hall.

Polygonum Persicaria L. (? appr. var. *elatius* Meisn.) [569]. Wymondley Road, Hitehin, Herts., v.c. 20, Sept. 20 and Oet. 5, 1923. Stem up to 2 ft. 6 in., erect, sometimes without lower branches. Leaves light green. Oehreae elose. Nodes occa-

sionally well developed. Peduncles smooth. In the early state the spikes tapered towards the tip, but this character vanished. The length of the spikes is variable. In var. *agrestre* Meisn., with manifestly divaricate branches and loose ochreae, they are not infrequently $1\frac{1}{2}$ in. long, and vary in colour—white, pale pink, or deep red. In these sheets the colour was of a decided red —J. E. Little. Meisner requires his *elatius* to have stems 1—3 feet high, leaves 4—6 inches long by 1—$1\frac{1}{2}$ in. broad, spikes 1—$1\frac{1}{2}$ in. long, slender and tapering to the apex. My example of Mr. Little's gathering scarcely conforms with this, particularly as regards the slender spikes —C.E.S.

Rumex elongatus Gussone [402]. Thames bank at Kew, Surrey, July 7, 1923 These specimens are from the tidal mud-banks of the Thames near Kew, where the plant occurs with *Glyceria aquatica*, *Scirpus carinatus*, and other estuarine species. It is noteworthy that it seems confined to the mud, and does not grow on the waste ground above the river-wall, where other Docks abound It was first recorded as an introduced British plant by Trimen in "Journ. Bot." XI, p. 237 (1873), from specimens collected lower down the river on the Surrey bank between Hammersmith and Putney Bridges. The plant has thus maintained itself by the Thames for at least fifty years, and apparently extends as far above London as the tide. I am not aware of any record for the river-bank below London. *R. elongatus* has also been reported for the Itchen at Southampton, and for the Wye at Tintern, by the late Augustine Ley, but these localities are rejected by Moss ("Camb. Brit. Flora," II, p. 139), who refers Ley's specimens to *R. crispus*, var. *plantifolius* Schns. Judging from the material in Herb. Mus. Brit., these more western plants do not seem identical with the Thames *R. elongatus*, but rather a form of *R. crispus* approaching it, with undulate and broader upper leaves, more crowded whorls, and usually triangulate inner sepals. But the specimens are hardly sufficient for an exact determination, and it would be interesting to know whether on the Itchen and the Wye the plant also grows on the mud. *R. elongatus* does not appear to fruit freely on the Thames, and as it was described from Sicily (Gussone, "Pl. Rar. Adriat." p. 150, 1826), and is only known as a native in the Western Mediterranean, it is unlikely to be indigenous in Britain. But it is just possible that, growing on tidal mud-banks in beds of *Glyceria*, etc , and usually half smothered with slime, it may have been overlooked in some of the estuaries of France or Spain.—H. W. Pugsley.

R. obtusifolius × *pulcher* [561]. Windmill Hill, Hitchin, Herts. Leaves 15/6/23, flowers 26/7/23, fruits 17/9/23. E. G. Baker assents.—J. E. Little. This shows good evidence of both parents. Well-formed nuts are present, slightly larger than those of *pulcher*, and paler in tint.—C. E. Salmon.

R. obtusifolius × *viridis* [564]. Wallington, W. Norfolk, Aug. 9, 1923. Stems and undersides of lamina ± papillate. Flowering branches ascending, rather long and lax, whorls not confluent. Flowers (all ?) sterile. Fruiting segments show some reticulation, narrow, oblong. Teeth occasional. Tubercle varying from oval to elongate acute. Pedicels jointed below the middle and unequal distances from the base. Both supposed parents were close at hand.—J. E. Little. Your plant is very interesting, and I should say that the identification is correct, but should have liked to have seen lower leaves. There is a very good paper on Rumex hybrids in Vol. III "Mitteilungen der Geographischen Gesellschaft," by Haussknecht, but he only gives *obtusifolius* into *sanguineus*, and not hybridising with *viridis*.—E. G. Baker. It looks quite right. The leaves and petals point to this hybrid. —C. E. Salmon. I think the hybrid suggested = × *R. Duftii* Haussk. The plant received, which resembles *R. viridis*, has nearly all the perianths quite undeveloped, but there are one or two which clearly show the toothed sepals, and large tubercle seen in *R. obtusifolius*. I have collected this hybrid in Surrey with a much larger proportion of fruiting perianths.—H. W. Pugsley.

Ulmus :—Specimens of Ulmus would be much more valuable if notes were made on the labels as to the habit of the tree, the character of the bark, the date of flowering, and whether the lower branches are corky.— A. B. Jackson.

Ulmus minor Mill. *Teste* A. Henry [534]. Near Wymondley Springs, Herts , Feb. 16, and Aug. 30, 1923. No fruit produced. Leaves turn in September.—J. E. Little. *Ulmus minor* Miller. —A. Henry. Correct. I have found it a frequent roadside tree in Leicestershire and Nottinghamshire, and have also seen it in other Midland counties.—A.B.J.

U. hollandica Mill. (537). Below Brook End, St. Ippolyts, Herts., v.c. 20, Feb. 17, May 17, Aug. 23, 1923. Tree about 70 feet, with wide spreading branches. Of 25 flowers examined, 4 had 3 stamens, 15 had 4, 5 had 5, and 1 had 6 stamens — J. E. Little. *Ulmus nitens*, var. This has leaves and samarae much too small for *Ulmus major* Smith, which I consider to be

the correct name for the tree sometimes named *U. hollandica* Miller.—A. Henry. Yes; the *U. major* of Sm., which is now assumed to be *U. glabra* Miller × *nitens* Moench.—A.B.J.

U. glabra × *nitens*. [551]. Glebe Pasture, St. Ippolyts, Herts., v.c. 20, May 17, and Aug. 19, 1923. Leaves elongate, oval, very asymetrieal, about 5 inches long and 2½ wide, acute-acuminate. Petiole 5—10 mm, still pubescent in August. Buds acute, hairy. Upper pagina shining, but scabrous. Lower pagina shortly hairy. Twigs of 1923 glabrescent. Twigs of 1922 striate, dark brown, hardly shining. Nerves 14—16 pairs. This form is not *U. hollandica*, nor is it quite *U. vegeta*.—J. E. Little. *Ulmus glabra* × *nitens*.—A.H. Yes; *U. vegeta* Lindley, the Huntingdon Elm, judging from the foliage. It is considered to be a hybrid of the same parentage as *U. major*.—A.B.J.

U. nitens Moench. [553] S. Gosmore, Hitchin, Herts., May 9, June 4, Sept. 15, 1923.—J. E. Little. *Ulmus nitens* Moench.—A.H. Yes, fairly typical *U. nitens*.—A.B.J.

Quercus pedunculata Ehrh. × *sessilifolia* Salisb. Darenth, Kent, v.c. 16, Sept. 1923.—St. J. Marriott. Yes. Stellate hairs abundant on leaves. Common peduncles in this case long.—J. E. Little. Apparently correct.—A.B.J.

Fagus sylvatica L. Seedlings. (1) Winscombe, Somerset, March 30, 1923. (2) With first pair of true leaves, Glen Frome, Bristol, v.c. 34, May 19, 1923. Abundant everywhere this year. —H. S. Thompson.

Salix pentandra L. ♂ [555]. West Mill, Hitchin, Herts., May 31 and Oct. 15, 1923. A large bush about 15 feet high, with several smaller ones, in a peaty reed-swamp on the left bank of the River Oughton. *S. pentandra* is not reckoned native in Herts. How this bush was introduced I have not been able to ascertain.—J. E Little. Quite correct. So far this specimen confirms my finding that the male plant has broader leaves than the female.—J. Fraser. Typical *S. pentandra*.—W. H. Pearsall.

S. triandra L. (male and fertile flowers). Darenth, Kent, v.c. 16, April 1923.—St. J. Marriott. My sheet represents a good shoot of the male *S. triandra*, but leaves in September would have made the sheet more interesting and complete. There are at least five forms of *S. triandra*, exclusive of hybrids.—J.F. ♂ stem *triandra*, ♀ stem *fragilis*.—W.H.P., J.E.L., J.F.

S. fragilis × *pentandra*? [556]. West Mill, Hitchin, Herts., May 31 and Oct. 15, 1923. Of 60 flowers examined, 9 had 2

stamens, 27 had 3 stamens, 16 had 4 stamens, 2 had 5 stamens. Twigs fragile at the base. Tree about 20 feet high, 60 yards from *S. pentandra* ♂.—J. E. Little. A very remarkable *S. pentandra* hybrid, probably with *S. fragilis* rather than with *S. alba*, in which *pentandra* very greatly preponderates. I do not remember *S. cuspidata* or *S. Pokornyi* Kerner, and think this may be a unique form different from either. Note the extraordinary small leaves of the flowering shoots. (Later) I should not be surprised if it contained *S. alba* as well as *S. fragilis*, and was in that case *S. hexandra* Ehrh. (See my "Mon. Brit. Willows," p. 19.)—E.F.L. The bracts are variable in shape, some being rounded above and others distinctly acute. All are glabrous at the tip. The filaments are hairy at the base. Rightly named in my opinion.—W. H. Pearsall. I regard this as *S. alba* × *pentandra*. The leaves are finely and regularly serrate. The filaments of the stamens have long woolly hairs on their lower half. Both sides of the leaves are covered with a varying amount of caducous hairs. The last 2—4 leaves of the summer shoot are also hairy. —J.F.

S. purpurea L. Stribers, N. Lancs., v.c. 69 B, April 24 and Sept. 15, 1923.—W. H. Pearsall. I agree. It is the ordinary form of the species, not the small-leaved form adopted by Smith. The leaves are entire or slightly crenate near the apex, therefore it is not the variety *Lambertiana*, which is considerably serrate. —J. Fraser.

S. viminalis L. Stribers, N. Lancs., v.c. 69 B, April 3 and 15, 1923.—W. H. Pearsall. Quite typical of the species.—J.F.

S. ——— × *cinerea* ? [515]. Ippolyts Common, Herts., Oct. 25, 1922 & March 16, 1923. This seems to me to be *S. caprea* × *cinerea* for the following reasons: The bracteoles are tapered or acute; the twigs in November 1921 were smooth and shining and reddish below, though pubescent at their tips; in summer the leaves are softly woolly; the lower leaves of the summer shoots have a rounded base, and in form are ovate or ovate-elliptic, more rarely obovate; the bud scales are some pubescent, some glabrous, and shining in late autumn; the shoots from the cutback stool in November 1921 were very stout.—J. E. Little. Nearer *S. cinerea* than anything else; may have *S. caprea* in it, and may very well be *S. caprea* × *cinerea*. Leaves very near *S. cinerea*. Stipules of *cinerea* cut, not looking at all like an *aurita* hybrid.—E.F.L. The abundant pubescence, and its colour, especially on the late secondary growth, suggest *S. caprea*, but all the rest is *S. cinerea*, and that is a very variable species. Conti-

nental specimens are usually more hairy than the British ones, though some of ours growing in marshy places are very downy, almost tomentose in the early stages of growth. It it a form I would cultivate before going beyond *S. cinerea*.—J. Fraser. I agree to this. The less evident parent (*S. caprea*) is seen in the almost complete glabrescence of the flowering twigs and buds. the softly woolly younger leaves, and the pointed bracts.—J.F. Very interesting. I would suggest *S. caprea* × *cinerea*.—W. H. Pearsall. This appears to be *S. caprea* × *cinerea*.—H. W. Pugsley,

S. caprea × *viminalis* [504]. (See W. B. E. C. R. 1922, 224). Between Grove Mill and Hyde Mill, Hitchin, Herts, v.c. 20, July 30, 1922, March 5, Oct. 4, 1923. As there was difference of opinion in 1922 in regard to this bush, I again sent a sheet to Mr. Linton, who writes, "*S. caprea* × *viminalis*, I agree." The amount of striation is about the same as in [539] and [521]. Here also, I think, rusty hairs are absent.—J. E. Little. Although the small striations under the bark of this are more pronounced than in [521], I agree to the name entirely. The tree or bush in this case is younger, or, at all events, growing with far more vigour than [521].—J.F. Notwithstanding a few rather long and uncharacteristic striations on the wood, I prefer this determination. The stipules are those of *S. viminalis*, which are often variable and persistent.—W. H. Pearsall. I agree.—H. W. Pugsley.

S. aurita L. [58]. Drier parts of Ireleth Moor, Dalton-in-Furness, N. Lancs., v.c. 69b, April 24 and July 4, 1923.—W. H. Pearsall. The one-year-old flowering twigs are not yet glabrescent, though this is of frequent occurence in many situations; and the specimens are pure *S. aurita*. Twigs of flowering shoots rather more glabrescent than on another sheet of this number, and correctly named.—J.F.

S. aurita L. [59]. Roadside, Black Dog, Dalton-in-Furness, N. Lancs., v.c. 69b, April 24, and Aug. 10, 1923.—W. H. Pearsall. The scales or bracts of the catkins are remarkably pale, and scarcely at all ferrugineous below the blackening tip, otherwise the speeimens are typical.—J.F.

S. cinerea L. [Ref. No. 57]. With yellow Iris in swampy hollow, which is under water in winter. Ireleth Moor, Dalton-in-Furness, N. Lancs., v.c. 69b, April, 24 and Aug. 10, 1923.—W. H. Pearsall. The small catkins, and narrow bracteoles seem to point to an *aurita* element, but I cannot see anything further in that direction.—J.E.L. I think this to be a form of *S. aurita*

or possibly a cross with *S. cinerea*, although the summer leaves are unusually smooth and glabrous. The small catkins, with pale, rusty scales, and short subsessile stigmas, point to *S. aurita*, and a very wet habitat is not unusal. It occurs in some of the wettest ground of Wimbledon Common.—H. W. Pugsley. I have sent this as typical of a form frequently met with in Furness, in low-lying marshy situations which are submerged in winter. This shrub is about seven feet high, much branched, widely spreading, and very dark in colour. In the catkin stage, it bears a strong resemblance to *S. aurita*, with its very slender spreading young branches and small catkins. Its habitat, however, is far too wet for that species, which always prefers a drier situation on our moors than *S. cinerea*. (Both *S. aurita* and *S. repens* are abundant on the higher ground in the immediate vicinity. *S. cinerea* is equally common in the ravine at the foot of the moor.) The leaves show little rugosity, are of very thin texture, and possess little pubescence. Many of them are widest near the middle, and gradually taper to each extremity. The stipules are very small, and variable in shape. At present I am inclined to think this is a ± starved form of *S. cinerea*, growing in an uncongenial situation, rather than a hybrid showing the influence of *S. aurita*.—W. H. Pearsall. This agrees with another sheet under the same number, and which I prefer to call a subglabrous form of *S. aurita*. This species is most at home, and most typical on dry ground, but sometimes occurs in swampy valleys in Surrey. I presume the situation in N. Lancs. is fully exposed to sun and wind. At first sight I took this other sheet to be *S. aurita* × *cinerea* (*lutescens* Kerner), but with the exception of the shape of the larger leaves and their subglabrous character, I can find nothing but *S. aurita* in the specimens. The small catkins, their small, rounded glabrous bud scales, the ferrugineous bracts, and the small, practically sessile stigmas all belong to *S. aurita*. The leaves are downy enough when they expand, but become calvate or bald. The reniform, stipitate stipules are those of *S. aurita*. Calvate leaves are frequent in *S. cinerea*, and occasionally occur in *S. caprea*. I have seen a square foot of calvate leaves on typical *S. caprea*, and at present am waiting for flowers of a large bush, with perfectly glabrous leaves, which otherwise I think is pure *S. caprea*. Mr. Pearsall's description of the surroundings is very interesting to me, because I have a form of *S. aurita* with *pubescent flowering twigs* from an oozy situation in Surrey, where, however, the bushes are sheltered and shaded by trees. The dark colour of the leaves of Mr. Pearsall's specimen is due to aphides, and the presence of sooty fungus.—J. Fraser.

S. cinerea × *viminalis* [521]. Great Wymondley, Herts., April 3, and Oct. 13, 1923. This was distributed to the B.E.C., 1921, as *S. caprea* × *viminalis* (Report, p. 577). I have now numbered it [521], and defer to the opinion of the Rev. E. F. Linton, who wrote, "Looks more like a *cinerea* × than a *caprea* ×, but there are some points in favour of each," and again later, "I suppose one of the many forms of this hybrid, (*S. cinerea* × *viminalis*)." On the plants sent to the B.E.C. Mr. J. Fraser preferred *S. cinerea* × *viminalis*; afterwards he agreed to *S. caprea* × *viminalis*. There is very slight striation, short, not much over 3mm. in length, but the upper leaves retain a silky pubescence to Oct. or Nov. These leaves are small, being produced at the extremities of old boughs, and their base is ± cuneate (see Note to No. 539). I do not see any indication of rusty hairs. The stipules do not appear to be produced upon these old spurs. Camus uses identical terms in describing the stipules of these two hybrids.—J. E. Little. I consider this sufficiently marked to conform to *S. caprea* × *viminalis* (*mollissima* Sm.) (*sericans* Tausch). The leaves are clean and silky up to Oct. 13. The catkins are not large, but still young. The few and minute striations under the bark could be derived from *S. viminalis*.—J.F. Yes; a tree evidently growing in uncongenial conditions.—W. H. Pearsall. I fail to see the influence of *S. cinerea* in this, and should have thought it *S. caprea* × *viminalis*. Hybrids of *viminalis* with *cinerea* generally show leaves somewhat broader upwards, and less clothed on the under surface.—H. W. Pugsley.

S. cinerea × *viminalis* [539]. Swamp by M. Ry. & R. Hiz., Hitchin, Herts., v.c. 20, March 5, and Oct. 4, 1923. Bush about ten feet high, growing near No. 504. The striation, though present, is short and only occasional. The barren shoots are more glabrescent than the flowering ones, and much brighter in colour. Stipules narrow, slightly dentate, acuminate. The under side of the lamina on the late summer shoots remains soft until Oct. without any indication of rusty hairs, and frequently has a rounded base. The size of the lamina, up to 14cm. long, varies greatly according to the vigour of the shoot. The other leaves, and those on the shoot spurs, become ultimately harsher and more glabrescent; they have a much narrower and more cuneate base.—J. E. Little. Looks as if there was some *S. caprea* in this, though not so clearly as in [504]. Can it be *S. caprea* × *cinerea* × *viminalis*? This might arise from the crossing of *S. caprea* × *viminalis* and *S. cinerea* × *viminalis*.—E.F.L. Correct, I should say, although there is little pubescence, and the filaments are practically glabrous.—W. H. Pearsall.

Orchis laxiflora L. St. Ouen's Pond, Jersey, June 17, 1923. W. C. Barton.

Asparagus maritimus Miller. Granite sea cliffs, La Moye, Jersey, June 6, 1896.—J. W. White.

A. officinalis L. *α hortensis.* Sea sands, Burnham, N. Somerset, Aug. 12, 1884.—J. W. White. In the copious interesting notes on *Asparagus officinalis* in Mr. White's "Flora of Bristol," we read: "The whole of our plants belong to var. *altilis* [L.]—identical with the cultivated form of Asparagus. . . . . There is no character by which *altilis* can be separated from the other form of the species, save its erect, long-branched habit of growth; *maritimus* having a shorter, stouter and decumbent stem or frond. . . . . If not indigenous it must indeed be thoroughly naturalized in the vicinity of Bristol, having a practically continuous record of nearly three hundred years." E. S. Marshall was also led to believe from observation on our own coast, and those of W. France, that the difference between the erect and prostrate forms is due to environment.—H.S.T.

Juncus tenuis Willd. Lane sides near the old mill, Crowborough Warren. E. Sussex, Sept. 12, 1923. This was in extraordinary abundance, forming the herbage by the lane sides for a considerable distance, and must have existed there for some time, and been a remarkable sight a month earlier when fresh and green. The inflorescence-branching varied a little, but as a rule the fruits were borne on elongated peduncles. This gave the plant a very different aspect from specimens gathered on Reigate Heath in 1916, where the heads were ± dense and compact without elongated bare branches. The latter may come under var. *congestus* G. Engelmann, but they did not seem to have the "pallida fusca" fruit ascribed to this variety by Buchenau ("Mon. Junc.," 194, 1890). *J. tenuis* seems a somewhat elastic species, Buchenau, who enumerates several varieties and forms, stating—"Planta in ramificatione inflorescentive et numero florum valde variabilis . . . . Varietates a me enumeratae fortasse pro pte tantum formae individuales sunt."—C. E. Salmon. See Mr. Bennett's note (W. B. E. C. Report, 1920) on the very remarkable spread of the plant in Great Britain and Ireland.—H.S.T.

J. diffusus Hoppe. (*effusus* × *inflexus*). Near Effingham, Surrey, Aug. 18, 1923.—L. B. Hall. Yes. The pith is continuous. A little more material would have been welcome.—J.E.L. Yes, the sterile state of this hybrid; the fertile form is less frequent.—C.E.S.

J. capitatus Weig. La Moie, Jersey, June 14, 1923.—W. C. Barton.

Potamogeton Drucei Fryer. Mostly fruiting specimens, with young and older leaves. River Avon at Bath, N. Somerset, v.c. 6, Aug. 27, and Sept. 1, 1923. First seen there in flower in Aug, 1922 by J. W. White, see "Rep. B. E. C.," p. 858.—H. S. Thompson.

Scirpus Tabernaemontani Gmel. Marsh ditch in the Cheddar Valley, North Somerset, June 13, 1901.—J, W. White. Much scarcer in N. than in S. Somerset.—H.S.T.

Spartina alterniflora Lois [403]. Itchen Banks, Southampton, Sept. 30, 1923. There are large beds of this plant in the tidal Itchen above Southampton, but I noticed that isolated clumps of its aggressive congener *S. Townsendii* have established themselves among it, especially towards high-water mark, and it remains to be seen how far it will maintain itself. *S. alterniflora* seems readily distinguishable from *S. Townsendii*, not only by its sub-erect leaves obscurely jointed to the sheaths, but by its relatively small anthers (5—7mm. instead of 10mm. long), and stigmas (4mm. instead of 12—15mm. long). Its stigmas are much shorter than those of the much smaller plant *S. stricta*.—H. W. Pugsley.

Anthoxanthum odoratum L. [685]. St. Aubin's, Jersey, June 18, 1923. Large plants with hairy glumes and interrupted panicle. This is not the var. *villosum* Lois. which has the leaf-sheaths hairy, and of which I have seen no British specimen. Asch. and Graeb. (Syn.) divide *A. odoratum* into two groups according as the lower glumes have long hairs on the nerves or not, and subdivide again. But I doubt whether our British plants admit of any rigid or even workable division on these lines. Both in Jersey and Guernsey the ordinary plant of the maritime cliffs has hairy glumes.—W. C. Barton. My sheet has two examples of var. *villosum* Lois., and one of var. *longiaristatum* Cel.—I.M.R. Correct. This seems to belong to Syme's var. *genuina*. Opiz enumerates ten varieties of this grass.—A. Bennett.

Agrostis setacea Curtis. Heath near Wareham, Dorset, June 29, 1914.—J. W. White. Correct.—A.B.

A. tenuis Sibth., var. *aristata* Parn. Winchmore Hill, Middlesex, July 25, 1923.—L. B. Hall. I have not access to Parnell's Scottish Grasses, 1842, where it is figured (tab. 11), but *aristata* is said to have the flower mostly violet.—A. Bennett.

A. nigra With. Arable land, near Ledbury, Hereford, Aug. 6, 1923.—S. H. Bickham. The branches of the panicle are not so ascending-erect as usual, but the armature, habit, with the long ligule, says "*nigra*."—A.B. A nice sheet containing flowering and fruiting panicles reached me. The latter seemed correctly named, but the flowering specimen I cannot separate from *A. alba*. The two frequently grow together.—C.E.S. This plant is best cited as *A. stolonifera* L. One of the main distinctions between *A. alba* and *A. nigra* is the position of the spines on the back of the glumes. I have examined a number of plants known as *A. alba* and *A. nigra*, and can find no constant difference in that respect so as to be able to separate the one from the other by that character. Another character considered of importance is the distribution of the spikelets on the branches of the panicle. In *A. nigra* these are described as absent from the base of the branch, while in *A. alba* they are borne down to the base. In the specimen sent by Mr. Bickham the glumes are spinous below the middle and nearly to the base (see article by J. E. Bagnall in "Journ. of Bot.," Vol. XX. p. 65, 1882),—W. R. Sherrin. Mr. Sherrin raises an old subject of controversy, and I much doubt if *A. stolonifera* L. is the *nigra* of Withering, so well described and figured in "Journ. Bot.," 1882, by my late friend, J. E. Bagnall. He knew this grass intimately, and pointed it out to me in 1893 in Warwickshire, Staffs., and Worcs., where it was quite frequent in arable fields, railway banks, and old clay quarries. Withering ("Arrangement," Ed. 3, 1796, II, p. 131), said in his description, "It has sometimes been considered as the *Agr. stolonifera* of Linn., but it is very different from that, and seems to have been figured by no one but Leers, who also is inclined to refer it to the *stolonifera*, but subjoins a mark of doubt." One of Withering's chief points is that *nigra* has "Florets few, thinly scattered at the ends of the branches." The panicle branches are also more rigid. In the seventh edn. of his work, edited by W. Withering, Jun., Vol. 2, p. 157, 1830, *A. nigra* was dropped; but in a long note on that page we read, "*A. nigra* (Black Couch Grass) of With. (*A. repens* of Sinel.) and *A. maritima* of With. should probably be comprehended under the present species." (*i.e. A. alba* L.) I have not seen the description by Linné of *A. stolonifera*; but Withering says, "Stem more extensively creeping, sometimes floating; but the chief difference consists in the still more dense and tufted lobes of the panicle, as in Eng. Bot. and Leers. 4, 5. Calyx besides is generally rough all over, with little bristly points." Now these characteristics are hardly those of *A. nigra*,

whose chief characteristic is the nakedness of the lower part of the branches, as in the true plant from the Midlands. I have no example of Mr. Bickham's gathering. I agree with Mr. Sherrin that there is no constant difference in the position of the spines on the back of the glumes of plants labelled *A. alba* and *A. nigra*, and I readily admit being one of several botanists who in the past have called certain puzzling specimens *nigra* which are not so. I believe *A. nigra* never grows in very wet places, as *stolonifera* appears to on occasion. Has not the latter, when growing on sand-dunes, been confused with *A. maritima*? Did the late Prof. Marshall Ward ever write in greater platitudes than when he said ("Grasses," p. 52, 1901), "Agrostis is full of difficulties (for the beginner)"? His classification need not of course be regarded too seriously; but he remarks that, "Only the variety *stolonifera* is of moderate value for pasture, especially on poor soils, as it lasts late into the autumn, the others are weeds, like couch-grass." If ever there was a "weed" it is *Agrostis nigra*!—H. S. Thompson.

Gastridium lendigerum. Cultivated ground, foot of Blackdown, Sussex, July 14, 1923.—R. J. Burdon. One of our most beautiful grasses when growing.—A.B.

Weingaertneria canescens, Bernh. S. Ouen's Bay, Jersey, June 14, 1923.—W. C. Barton. A very poor sample of the grass, which is quite beautiful when fully exposed in the dunes. —A.B. Is not *Corynephorus* P. Beauv. a more satisfactory genus?—H.S.T.

Avena fatua Linn., b. *intermedia* Lindgr. Cultivated field near Cambridge, Sept. 17, 1923.—A. J. Crosfield. Yes; = var. *glabrata* Peterm.—I.M.R. It seems doubtful which name this grass should have. *A. fatua* L., var. *glabrata* Peterm., "Fl. Boeng." 13, 1841. The same as Petermann's in Reichenbach's "Fl. Saxonica," 17, 1841. *A. intermedia* Lindgr., "Bot. Not." 151, 1841.—A.B.

Cynosurus echinatus L. St. Ouen's Bay, Jersey, June 16, 1923. Some of the plants growing in the abandoned trenches of the prisoners' camp were as much as four feet high. The panicles were large in proportion. Rouy has a subvar. *giganteus* "Plante robuste, atteignant 1 mètre, à panicule plus allongée, mais de même forme que chez le type." On the level ground the plants were of usual size.—W. C. Barton.

Koeleria vallesiana Asch. & Graebn. Uphill, N. Somerset, v.c. 6, July 9, 1923. On limestone rocks and slopes.—H. S. Thompson. One of Dr. Druce's most interesting finds of old. "Journ. Bot." 313, tab. 474, 1905.—A.B. Yes, and a most accurate plate.—H.S.T.

K. britannica Domin. Worle Hill, N. Somerset, July 7, 1895. Legit C. Bucknall, det. H. S. T. I showed this to Mr. A. J. Wilmott, who thinks it undoubtedly *K. vallesiana*. Later: Mr. Wilmott said he thought a sheet had come in from Worle Hill labelled *K. vallesiana*, and that the label on mine was probably meant for *K. vallesiana*.—J.E.L. I believe correct.—A B. Among Bucknall's duplicates were both plants from Worle Hill. Mr. Little kindly sent me his sheet, which I agree is small *vallesiana*.—I regret the confusion.—H.S.T.

Briza maxima L. La Corbière, Jersey, June 16, 1923.—W. C. Barton.

B. media L., var. *albida* Lej. Pasture, Blagdon, N. Somerset, v.c. 6, June 21, 1923. When growing amongst type it is a striking and beautiful variety.—I. M. Roper. Cf. Le jeune et Courtois "Comp. Fl. Belg." 186 (1828).—A.B. This colour-form has often been taken for *B. minor* by those unfamiliar with that distinct species.—H.S.T.

Festuca uniglumis Soland. Burnham Sand Hills, N. Somerset, v.c. 6, June 7, 1923. Sent because this grass so soon gets burnt up.—H. S. Thompson. Correct.—A.B.

F. rubra L., var. *genuina* subvar. *tenuifolia* Howarth. Det. W. O. Howarth. Severn Beach, W. Gloucester, v.c. 34, June 5, 1922.—H. S. Thompson.

Bromus madritensis Curtis. (1) Limestone rubble by River Avon, below Bristol, v.c. 34, June 12, 1921. (2) Slopes of Durdham Down, Bristol, v.c. 34, June 4, 1922.—H. S. Thompson. Sent for new members. This rare grass, locally abundant on the Gloucester side of the R. Avon below Bristol, appears at present to be confined as a native in that county to portions of a very narrow strip of Avonian (Limestone) a mile and a half in length. It avoids the remarkable deposit of Dolomitic Conglomerate about Bridge Valley Road. In Somerset it is native only on that side of the R. Avon in an extremely confined area on the same limestone rock. Reappearing here and there near towns on the S. Wales littoral, this Atlantic and southern species is also known to have been established since 1848 by the river and

castle at Carrick-on-Suir, Co. Tipperary. But the editors of "Cybele Hybernica," ed. 2, suggest that as it is "almost confined to walls and ruins . . . there is reason to suspect that it has been introduced." The first British record was Hudson's in 1788 (on old walls about London and Oxford); but Curtis got it at Bristol in 1793.—H.S.T.

B. secalinus L. Cultivated ground at foot of Blackdown, Sussex, June 15, 1923.—R. J. Burdon. Var. *velutinus* Schrad. = *B. multiflora* Smith, "Fl. Brit." I, 126, 1800.—A.B.

Phyllitis Scolopendrium Newm., vars. *bifidum*, *submarginatum*, etc. Deep glen above Tintern Abbey, Mon., v.c. 35, Sept. 3, 1923.—H. S. Thompson.

P. Scolopendrium Newm., var. *multifidum* Moore. Wood, Monkton Combe, N. Wilts., v.c. 7, Jan. 12, 1923.—I. M. Roper. Correct.—C.E.S.

Azolla filiculoides Lamk. Potter Heigham, Norfolk, May 1916. Coll. G. C. Brown. Comm. Nat Mus. of Wales. First reported from Norfolk at Woodbartich by W. Barnsley as *A. carolinia*. In the "Trans. Nat. & Worc. Nat. Soc." IX, 734, 1914—with plate—will be found a good account of its growth, reproduction, etc. It has been introduced into Europe about fifty years.—A.B. In 1916 this S. American plant was found near Corfe, Dorset, by Mr. R. V. Sherring.—H.S.T.

Viola (p. 248). Miss Roper writes (June 21) to explain that Mr. White in *Fl. of Bristol* omitted to add that Rouy et Foucaud, on examining Jordan's plant, recognised it as *V. canina* × *silvestris* (*Fl. France*, III, p. 7), and that therefore White had a different plant under consideration. Becker, Fouillard, and Koch also give hybrid origin to Jordan's *nemoralis*. As the Somerset peat-moor plant shows no hybridity, Miss R. thinks Mrs. G. was right in ignoring Jordan's plant.

NOTE.—*Back numbers of many of the Reports may be bought from the Treasurer at prices to be arranged with him.*

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Comber, J.	10	6
Cotton, Mrs.	10	6
Crosfield, A. J.	10	6
Darbishire, Prof. O. V.	10	6
Day, Miss L.	10	6
Downes, H.	10	6
Druce, F.	10	6
Evans, A. H.	10	6
Ewing, Mrs.	10	6
Geldart, Miss A. M.	10	6
Goode, G.	10	6
Gray, Dr. H	10	6
Gregor, Rev. A. G.	10	6
Hall, L. B.	10	6
Hanbury, F. J.	10	6
Hudson, Rev. J. C.	10	6
Lacaita, C. C.	10	6
Little, J. E.	10	6
Lomas, Miss M.	10	6
Long, Dr. F.	10	6
Luddington, J. L.	10	6
Marriott, St. J.	10	6
Martin, Rev. W. K.	10	6
National Museum of Wales	10	6
National Museum, Dublin..	10	6
Pearsall, W. H.	10	6
Pugsley, H. W.	10	6
Ransom, F.	10	6
Riksmuseets Bot. Dept., Stockholm	10	6
Rilstone, F.	10	6
Roper, Miss I. M.	10	6
Salmon, C. E.	10	6
Sheldon, F. J.	10	6
Shoolbred, Dr. W. A.	10	6
Simpson, N. D.	10	6
Smith, Prof. W. W.	10	6
S. London Bot. Inst.	10	6
Thomas, F.	10	6
Thompson, H. S.	10	6
White, J. W.	10	6
Wilson, E. A.	10	6
Wolley-Dod, Lt.-Col. A. H.	10	6
	£28	7 0

TREASURER'S BALANCE SHEET, 1923.

Receipts.

	£	s.	d.
Balance in hand, Dec. 31st, 1922	10	15	8
Subscriptions for 1923	28	7	0
Reports sold	1	1	6
	£40	4	2

Expenditure.

	£	s.	d.	£	s.	d.
Printing—						
Thirty-ninth Annual Report (175 copies), 40 pages and wrapper ...	25	0	0			
Card (and postage)		8	6			
Receipt books (for five or six years) ...	1	7	3			
				26	15	9
Working expenses—						
Distributor	3	2	10			
Secretary: Envelopes and Postage of Reports		10	9			
,, Ordinary Postage		10	6			
				4	4	1
Balance in hand, Dec. 31st, 1923				9	4	4
				£40	4	2

31*st December*, 1923.

G. GOODE,
Hon. Treasurer.

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Arthur Bennett, A.L.S., 5, Thanet Place, Croydon.

Rev. E. F. Linton, M.A., Bealings, Southbourne-on-Sea, Hants.

Vol. III., No. 8.

THE

FORTY-FIRST ANNUAL REPORT

OF THE

WATSON

Botanical Exchange Club

1924—25.

Referees:

H. W. PUGSLEY, B.A., F.L.S., 81, Alexandra Road, Wimbledon, S.W. 19.

Rev. H. J. RIDDELSDELL, M.A., Bloxham, Banbury.

CHARLES E. SALMON, F.L.S., Pilgrims' Way, Reigate.

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Hon. Secretary and Editor:

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CAMBRIDGE:

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1925.

THE WATSON

Botanical Exchange Club

REPORT FOR 1924—25.

LIST OF CONTRIBUTORS.

	Sheets.		Sheets.
S. H. Bickham ...	... 54	H. W. Pugsley...	... 54
W. Biddiscombe	... 30	Miss I. M. Roper	... 173
R. J. Burdon ...	... 77	C. E. Salmon ...	... 36
D. G. Cateheside	... 184	F. J. Sheldon ...	... 30
A. J. Crosfield ...	... 31	W. A. Shoolbred	... 164
J. Fraser ...	... 51	S. London Bot. Inst.	... 118
Jas. Groves ...	... 7	H. S. Thompson	... 470
I. Helsby ...	... 6	Nat. Mus. of Wales	... 53
C. C. Lacaita (Continental)	50	J. W. White ...	... 158
J. E. Little ...	... 314	I. A. Williams ...	... 11
St. J. Marriott ...	... 15	E. de Wildeman (Belgian)	100
J. L. O'Loughlin	... 133		
W. H. Pearsall...	... 43	Total ...	...2362

2362 sheets of plants have been received from 24 contributors, and 74 packets of seeds from Mr. Little. The plants on the whole were well prepared; but some were very poor in this respect, which is to be deplored, especially as they included some of the rarest plants sent in. The contributors showed care in adhering to the rules, which makes the distribution somewhat easier.

Two hybrid Carices, new at least to Britain, were included in the parcels, viz.: *Carex remota* × *divisa*, discovered in Sussex by Mr. C. E. Salmon, and *Carex contigua* × *vulpina*, found in 1922 near Bristol by Mr. H. S. Thompson.

A parcel of foreign plants sent by Mr. C. C. Lacaita was much appreciated; and in March a century of Belgian plants, mostly common species, arrived from the Director of the Jardin Botanique de l'État, Bruxelles.

The thanks of the Club are due to the following, who kindly acted as referees: Mr. A. Bennett, Mr. E. G. Baker, Mr. W. C.

Barton, Mr. C. E. Britton, Dr. E. Drabble, Mr. J. Fraser, Mrs. E. S. Gregory, Mr. J. Groves, Mr. W. O. Howarth, Mr. A. B. Jackson, Mr. C. C. Lacaita, Mr. C. V. B. Marquand, Mr. W. H. Pearsall, Mr. H. W. Pugsley, Rev. H. J. Riddelsdell, Dr. E. J. Salisbury, Mr. C. E. Salmon, Mr. F. J. Sheldon, Mr. W. Watson, Mr. A. J. Wilmott, and Lt.-Col. A. H. Wolley-Dod.

W. R. Sherrin, *Distributor.*

S. London Botanical Institute,
323 Norwood Road, S.E. 24.

We are much indebted to Mr. Sherrin for undertaking the distribution at a particularly busy time.

I would express regret for about a dozen misprints in the previous Report. Among the less obvious are: p. 246, line 11, for "*apelata*" read *apetala*; p. 260, l. 11, for "and" read at; l. 18, read *sessiliflora*; p. 265, lines 37 and 38, for "other" read older, and for "shoot" read short; p. 271, l. 18, read Woodbastwick, and *caroliniana.*

It would save both the Distributor and the Editor of the Report an immense amount of time if members would kindly endeavour to write the facts on their SPARE labels as much as possible as they will appear in the Report, and in the order which has been in vogue so many years. A better plan, already adopted by several, is to write the necessary matter, including useful comments (but no more), on quarto sheets of paper, say 9″ × 6″ or 7″, leaving a line between each plant. These are easily cut up, pasted on quarto sheets for the printer, and any notes from referees are attached or copied below. A great saving of space also results.

Any suggestions about a Desiderata List for next spring will be gladly received.

H. S. Thompson, *Hon. Sec.*

Death has again had its toll from among our members and former members, and we mourn the loss of four of the kindest of mortals in Mr. Charles Bailey, Mr. and Mrs. T. A. Cotton, and Mr. Edw. Clemmshaw, M.A., better known latterly as a Bryologist. The passing of Mr. James Britten, for forty-four years editor of *The Journal of Botany*, should also be recorded here, for he always took interest in the work of the Club, and frequently made extracts in his *Journal* from our Reports.

CHARLES BAILEY, M.Sc., F.L.S. (1838—1924).

Mr. Bailey's name will always be associated more with the older Botanical Exchange Club, of which he was the life and soul for so many years, than with our own. But he became an active and subscribing member of the Watson Club in 1903, and remained a subscriber to the end; and until 1920, when advancing age curtailed his activities, there were only two years when he did not contribute a parcel of his beautifully preserved and carefully labelled specimens. Not only were his dried plants a pleasure to handle, and his hand-writing a pleasure to read, but everything he did was thorough, and his love of order and method ever apparent. He was prompt and business-like in his botanical as in his other work, and withal he showed a generous spirit in small as well as in large things.

Charles Bailey was born at Atherstone, Warwickshire, June 14th, 1838, and at an early age he became engaged in the business of the important firm of Ralli Brothers, East India Merchants, in whose Manchester house he remained attached for no less than fifty-five years. After living at Whalley Range and St. Annes-on-Sea, he removed to Cleeve Hill, above Cheltenham, on retirement from business. To his house on Cleeve Hill he added a large building expressly planned to accommodate his enormous herbarium of over 88,000 sheets of British and more than 209,000 sheets of foreign plants. I remember with what extreme care and neatness everything was arranged. Before he moved finally to St. Mary Church, Torquay, where, in December 1921, I last saw him, his botanical collections were given to the University of Manchester, together with a substantial endowment.

Bailey was elected F.L.S. in 1878, and in 1902 the honorary degree of M.Sc. was conferred upon him by the University of Manchester. The majority of his botanical writings, most of which were not long, were published in the Memoirs and Proc. of the Manchester Lit. and Phil. Soc. between 1866 and 1909. We may here quote a few lines from the *Manchester Guardian*, Sept. 17, 1924, written by his friend Prof. F. E Weiss, F.R.S.: "Through all recognition by his fellow-citizens and fellow-scientists of his merits, Charles Bailey preserved his innate modesty, and always shrank from taking a prominent position such as his distinction warranted. Ever anxious to help, he preferred to be a private in the ranks, where he could always be relied upon to do more than his share of the work. His integrity and kindliness endeared him to a large circle, and all who came

into touch with the charm of his personality will mourn his loss as that of a true and sincere friend." I am also indebted for a few facts to Mr. Cosmo Melvill's memoir in Journ. Bot., Jan. 1925.—H. S. T.

Mr. and Mrs. THOMAS A. COTTON.

The fact that the late Thos. Atkinson Cotton, F.L.S., F.Z.S., J.P., passed away on the day that his dear wife was buried at Bournemouth, April 16, 1925, makes it appropriate that any short notices of these two kind friends of the W.B E.C. should be combined. Great sympathy is felt for their only daughter and her husband, who were both quite ill before and when this happened.

Some of our present members will be unaware that Mr. Cotton was for about a decade the second Secretary to this Club, until 1899, when he asked me to take his place; and after five years Mr. George Goode started his long and efficient term as Secretary and Editor. The first Secretary was the late A. Rayney Waller.

In the first Report, dated 1885, we find among the thirty-five members, "Miss Spence, Holgate House, York,"—we also find Arthur Bennett, F.L.S., J. W. Carr, then at Cambridge, and Rev. E. F. Linton in that list. And in the sixth Report T. A. Cotton first figures as Hon. Sec. He had already married Miss Charlotte Spence, daughter of the late Joseph Spence, a member of the Society of Friends at York, and they had removed to London. T. A. Cotton was born at Driffield, Yorks, in 1857, and met Miss Spence in connection with her Sunday School work at York. In the year 1893 Mr. and Mrs. Cotton bought "The Mount," Bishopstoke, Hants, a large house which was partly rebuilt, and surrounded with beautiful and extensive grounds. Here it was that less fortunate people were particularly welcomed, and whence sprang many philanthropic efforts. But after the war the Cottons took a smaller house at Highcliffe, Hants, and it was there that Mr. Cotton had for a considerable time been in a sad state of health.

T. A. Cotton, who had a keen sense of humour, had been Chairman of the Eastleigh Council, a member of the Hants Education Committee, and a Governor of Hartley University College. At "The Mount" he had a fine natural history museum and excellent aviary; and on leaving their home the vast collection was handed over to the Hants C.C., and is now

in the care of Winchester City Council. A feature of the large and valuable collection of birds, stuffed and set up by Mr. Cotton and his brother, is the realistic surroundings with appropriate water-colour backgrounds to the cases, which Mrs. Cotton was chiefly responsible for.

In Mrs. T. A. Cotton our Exchange Club has lost one of its original members, who, apart from the specimens formerly contributed, was one who on several occasions helped us out of slight financial difficulty. I remember it was in that well-known trout stream, the River Itchen, which skirted the Cottons' property near Eastleigh, that I first saw *Œnanthe fluviatilis* flourishing—supposed to be one of the very few phanerogamic plants peculiar to England.—H.S.T.

EDWARD CLEMINSHAW, M.A. (1849—1922).

Born in 1849, and educated under Dr. Temple at Rugby, E. Cleminshaw took part in the foundation of the Rugby School Natural History Society, one of the oldest of such school societies after that at Bootham, York. He was a scholar of Merton College, and took first class honours in Natural Science. From Oxford he became Science Master at Sherborne School, and was afterwards chemist at the famous glass works of Messrs. Chance at Oldbury, near Birmingham. He was unmarried, and lived in rooms in Edgbaston, where I often saw him in the 'nineties and made frequent botanical excursions with him. We both came under the spell of the late J. E. Bagnall, who encouraged Cleminshaw to take up Mosses and Hepatics, so that soon he became more and more interested in them, and he afterwards arranged the collection of Mosses at the University of Birmingham. Bagnall's paper on *The Mosses and Hepatics of Worcestershire*, in Journ. Bot. 1903, is a record of the work of E. Cleminshaw, J. B. Duncan of Bewdley (once a member of the W.B.E.C.) and himself.

Cleminshaw joined this society in 1900, but after contributing well selected and neatly dried specimens fairly regularly, he withdrew in 1908. He was one of those kind-hearted, happy men who never knew what it was to be in a hurry, and he strode over the ground in the most deliberate manner, and often carried much paraphernalia. But he never quite lost the pedagogic manner acquired at Sherborne. His collections were sent to Rugby School.—H.S.T.

Last summer the Librarian of the Soc. Royale de Botanique de Belgique expressed a desire to exchange publications with us. This was gladly assented to, and as many of our back Reports as could be spared were sent to Brussels in exchange for several numbers of the Bulletin. The Bulletins are being housed and placed on loan in the Dept. of Botany at the University of Bristol, and can be borrowed by application to Prof. O. V. Darbishire and payment of postage, or by writing to the Secretary of W.B.E.C.

Thalictrum minus L. Devil's Dyke, near Beechamwell Warren, W. Norfolk, v.c. 28, Oct. 9, 1924. This is perhaps var. *collinum*.—J. E. Little. This is the same form as was collected at Tottington (B.E.C. 1914 Rep., p. 111) as *T. minus* var. *montanum*, and from Cockley Cley (W.E.C. 1917—8 Rep, p. 48) as *T. minus* var. *collinum*. The latter name is certainly incorrect, while the former is a name whose significance is doubtful. The plant is small to medium in size, without definite "leafy base" (*i.e.* leaves crowded together owing to shortening of the internodes), the leaf glands (underside) few (below) to moderate (above), but difficult to see as the foliage is not dark green like the Snowdon form but dries a light colour, the fruit probably moderately long, but I have seen none ripe. It may be a less glandular form of the (generally "leafy-based") plant which occurs on Newmarket Heath, Cheddar (one of the two forms), Derbyshire dales, Great Orme's Head, Gordale and Malham (Yorks), and Kyloe Crags (Northumberland), etc., and which I suspect may be *T. monticolum* Jord. But definite names must await observation of habit and fruit.—A. J. Wilmott.

T. minus L. (1) Rocky ledges, Clogwyn, Snowdon, August 31, 1924.—D. G. Catcheside. (2) Clogwyn du'r Arddu, Snowdon, September 1, 1924.—J. L. O'Loughlin. It is impossible with our present knowledge to give definite names to the British forms of the series *Minores*. This form I have only certainly seen from N. Wales. It has previously been called *T. collinum* Wallr. by E. S. Marshall, but it is not that because its fruits are elliptic and not shortly ovoid. It is practically without glands on the leaves, and this character taken with the fruit shape brings it under the forms properly placed under *T. Jacquinianum* Koch, although it is not the typical form. The whole group requires revision, and before that can be done more field work and critical collecting is necessary. It is necessary to have the completely ripe fruit, collected in October or later, since the

form alters when the fruit ripens. It is also necessary to note the rootstock and mode of growth; some, as this Snowdon form, is what has been described as "caespitose," *i.e.* a single shoot is sent up from the same stock for several years, so that the plant is not "extensively creeping" as are so many of the forms. It is therefore necessary to collect the root-system thoroughly. Sometimes two forms may occur together, as at Cheddar, and this has caused confusion. The covering of fine glands should be carefully observed; the lowest leaf is either eglandular or with many fewer glands than the middle leaves, and the uppermost bractiform leaves are normally the most densely glandular, and may bear some glands when the rest of the foliage is without any. When this is recognised, I think it may be found that the glandular covering affords good characters which are correlated with the fruit shape: in collecting the ripe fruits, fragments of the main leaves (even if withered) should be collected with them and the fruits of the different individuals kept separate, if two forms are suspected to occur together. I should be glad to receive series of specimens collected in flower, in fruit, and ripe fruits, with notes on the habitat and mode of growth, with a view to a more satisfactory account of this difficult group.—A. J. Wilmott.

Ranunculus circinatus Sibth. In the moat at Kew, Surrey, v.c. 17, June 7, 1924.—D. G. Catcheside. I do not think this calls for any comment. The species is, I think, always quite distinct from any other.—J. G.

R. trichophyllus Chaix (and ? *f. radians* or *f. Godroni*. Growing with *R. trichophyllus*). Floating leaves ± circular, with three main divisions, each with rounded lobes; the sinus between the two main lateral lobes deep, V-shaped; the sinuses on either side the smaller mid-main lobe reaching half way, V-shaped. Stem, petioles and underside of floating leaves hairy. Receptacle globular. Peduncles about equalling petioles. Petals up to 9mm. long and 6mm. wide, ± contiguous. Carpels hairy. Pond, S.W. of Park Wood, near Marden Abbey, Beds., v.c. 30, May 13, June 14, 1924. The later gathering is not good material, but it was the best that I could get.—J. E. Little. The specimens collected in May seem to be good *trichophyllus*. Those in June, from the many weak peduncles and undeveloped carpels, as well as the general appearance, I should have thought a hybrid, possibly *R. peltatus* × *trichophyllus*. One would like to know if they came from precisely the same spot as the May specimens, and whether either of the floating-leaved species were present in the neighbourhood. Hybridity with these plants, which is very

frequent, is usually easily detected in the field, and when specimens are collected with weak fruiting peduncles and imperfectly developed heads of carpels it is always advisable to investigate the matter on the spot to see if hybridity is the explanation.—J. Groves.

R. Drouettii F. Schultz. Rhine, Shapwick Moor, N. Somerset, v.c. 6, May 2, 1924.—Ida M. Roper. Yes.—J. Groves.

R. heterophyllus Weber. Rhine, Shapwick Drove, N. Somerset, v.c. 6, May 2, 1924.—Ida M. Roper. I should so label it. Weber's name was intended in a much wider sense than that in which we now use it. Those nomenclaturists therefore, who hold it to be necessary for the citation of an authority to denote precisely the same in which a name is being used, would add "emend——," but by what author or authors it is not easy to say, the name having been applied so variously.—J. Groves.

R. heterophyllus Weber, var. *triphyllus* (Hiern). In a ditch, Mitcham Common, Surrey, v.c. 17, May 10, 1924.—D. G. Catcheside. Evidently the plant which my brother and I collected in the same locality as far back as 1876, and which Mr. Hiern referred to his *f. triphyllus*. The very characteristic floating-leaves, however, are not well represented in these specimens.—J. Groves.

R. hederaceus L., var. *omiophyllus* (Ten.). In a ditch on Mitcham Common, Surrey, v.c. 17, May 10,. 1924.—D. G. Catcheside. This is no doubt the *f. homoeophyllus* of Hiern, which that author identified with *R. omiophyllus*, Tenore. It is however only, I think, a floating state of *hederaceus* as suggested by Hiern, and I do not think any firm line can be drawn in the series between it and the little ivy-leaved form of drying-up mud.—J. Groves.

R. scoticus E. S. M. Inchnadamph, W. Sutherland, v.c. 108, July 18, 1908.—W. A. Shoolbred. This plant does not agree with Marshall's original description (with figure) of *R. petiolaris* (= *R. scoticus*) in Journ. Bot. xxx, p. 289 (1892), which states that the stem is erect, the original root-leaves reduced to subulate petioles, the later ones with or without a short, blunt, linear-oblong blade, all being quite entire and with very long petioles, and the flowers few (1—4) or solitary. Moss (Camb. Brit. Flora, iii, p. 128) doubts the constancy of the foliar characters assigned to *R. petiolaris* and places it under *R. Flammula* L. as a variety of *petiolaris* Lange. There is good material of this plant in Hb.

Mus. Brit. from Kingshouse, the *locus classicus*, which agrees well with Marshall's description; but specimens from other Highland localities, authenticated by him, are less distinct and show a transition to a narrow-leaved form of ordinary *R. Flammula*. I can see no sufficient ground for treating the original *R. petiolaris* as more than a variety of *R. Flammula*. In Mr. Shoolbred's specimen the stem is ascending from a decumbent base, the only remaining radical leaf has an elliptical blade, and the leaves generally are obscurely toothed and not very long petioled, while there are nine flowers in the panicle. I think that this specimen can hardly be referred to var. *petiolaris* but must be regarded as a narrow-leaved form only of *R. Flammula*, which, I believe, is not uncommon on acid soils, especially in the Western Highlands —H. W. Pugsley.

Fumaria purpurea Pugsley. Roadside, Beechlands, Belfast, Co. Antrim, Aug. 24, 1924. Determined by Mr. Pugsley.—Jas. W. White. Good and well-dried specimens of this uncommon species, which has seldom been distributed through the Club. It is to be feared that in England *F. purpurea* is becoming scarcer.—H.W.P.

F. Boraei Jord., var. *britannica* Pugsley. Near Ilfracombe, N. Devon, v.c. 4, Aug. 18, 1924.—D. G. Catcheside. This is *F. Boraei* Jord., but scarcely my variety *britannica*, which has relatively smaller sepals and more rotund fruits. There is a great variety of forms of *F. Boraei* about Ilfracombe, connecting the type with var. *britannica* and var. *ambigua*.—H.W.P.

Barbarea vulgaris R. Br., var. *transiens* Druce. See Journ. Bot. 1916, p. 208. Border of field, Tyndall's Park, Bristol, v.c. 34, June 16, 1923.—Jas. W. White. Correct.—A.B J.

B. [*intermedia* Bor.] By the Frome, Iron Acton, W. Gloster, v.c. 34, Aug. 12, 1924. Sent to show vegetative reproduction some way up the stem by vigorous shoots from the leaf axil. Such method of reproduction in *Barbarea* appears not to have been recorded, although buds on leaves are not uncommon in certain Crucifers. Prof. F. O. Bower, in *Botany of the Living Plant*, considers the development of adventitious buds is due to some stress, but in this case several plants gave off shoots, and no stem showed any trace of injury. It is noticeable that the young leaves resemble those of *B. vulgaris*, and not the parent.—Ida M. Roper. An interesting case of proliferation, no doubt induced by the wet summer. But the plant is *B. vulgaris* B. Br., not *B. intermedia* Bor.—A.B.J.

Draba muralis Sinn. Wall-top near Ledbury, Hereford, v.c. 36, May 10, 1924. A casual.—S. H. Bickham.

D. aizoides L. Rocks and walls at Pennard Castle, Glam., v.c. 41, April 12, 1924.—I. Helsby.

Erophila glabrescens Jord. Amongst short grass, Keston Common, W. Kent, v.c. 16, May 3, 1924.—D. G. Catcheside. I do not see any simple hairs. The numerous bifid hairs show that this is not *E. glabrescens*. The silicules are young, but judging from present material, whilst they are not of true *E. brachycarpa* Jord. form, they belong to plants intermediate between this and *E. verna* E. Meyer (*E. vulgaris* DC.) I find plants of this kind very numerous on railway ballast at Hitchin.—J.E.L.

E. leptophylla Jord. Bank, Chobham, Surrey, v.c. 17, April 7, 1923. Seeds about 16 or 18.—D. G. Catcheside. The narrow entire or subentire leaves, slender stems, and long peduncles suggest that these belong either to Rouy's subsp. *D. lanceolata* (*E. stenocarpa* Jord.) or to *D. leptophylla* (*E. leptophylla* Jord.). The petals are decidedly longer than the sepals, but the silicules are not sufficiently advanced to give more than a presumption that it is not *E. stenocarpa*.—J.E.L.

Brassica juncea (L.) Coss. White Hill, Hitchin, Herts., Aug., Oct., Nov., 1924.—J. E. Little. Also fourteen packets of seeds. Cosson, in Bull. Soc. Bot. de France, 1859, 609, remarks, "Le *B. juncea* est cultivé comme plante oléifère en Chine et au Japon." He characterises Jacquin's figure, in Hort. Vindob. t. 171, of *Sinapis juncea* as 'optima.' Jacquin has also a description, of which I quote a part: "Siliqua est sesquipollicaris aut biuncialis, obsolete quadrangularis, ad semina tornlosa, leviter compressa, nitidaque. Dissepimentum ultra valvulas ad tres quattuorve lineas in rostrum rectum excurrit. Semina sunt subrotunda et nigricantia. Pedunculi proprii ad angulum acutum patent. In planta senescente saepe rami numerosi de caule ramisque principalioribus egrediuntur, ut planta tunc merum densumque ramorum fascienlum formet." The late-gathered sheets exemplify the last remark.—J.E.L.

Viola odorata L., var. *sulphurea* Cariot. Combe Down, Westbury-on-Trym, W. Gloster, v.c. 34, April 11 and July 24, 1924. Comparatively few capsules were formed this season.—Ida M. Roper. Yes, but the ciliation of the stipules less marked than usual.—E.S.G. *V. sulphurea* Lamotte in Prodr. fl. plateau central (1877), adopting the name proposed, without description of the

plant, by Cariot in *Etude des Fleurs* (1860). From Lamotte's description, based on a single very incomplete specimen, Miss Roper's plants differ only in spring leaves with an *open* sinus, lower petal *not* emarginate and lateral petals bearded. In my opinion the plant recedes considerably from *V. odorata* α *typica*, and closely approaches *V. dumetorum* Jord. Is it fragrant? Cariot placed it near *V. hirta*; Lamotte near *V. odorata*.—W. Watson.

V. sylvestris Kit. Open woodland and lane near Clapton-in-Gordano, N. Somerset. Summer leaves, July 1916; and flowers, May 14, 1924. The full-grown leaves of violets are often wanting from specimens, and as they show specific characters more distinctly than in the flowering stage these sheets may be found useful.—Jas. W. White. For many years I have looked upon *V. sylvestris* Kit. as a dying-out (or splitting-up) species. The latest set of pure plants came to me in 1914 from Mr. W. H. Pearsall, collected in N. Lancs. With these he noted: "Hitherto I have been unable to find the type, although members of my staff and I have examined some thousands of plants." Mr. White's set of plants, under the name of *V. sylvestris* Kit., tends to strengthen my conviction. Of the majority of these (every one of which I have examined closely) the best that can be said is: "Near *V. sylvestris* Kit." Quoting from a letter to me on the subject from my late son, R. P. Gregory, I may add: "I've often wondered whether some of these many forms are really hybrids. Why should they not be mutations? New forms appearing, that is to say; there's no reason at all why some of them should not be more or less intermediate between two older forms. I wish you'd remind me to talk this over with you some day."—E.S.G.

V. Riviniana Reichb., var. *nemorosa* Neum. Large growth, with large flowers and great root development, among pine-needles under Scots pines, Sharpham Peat Moor, Somerset, May 16, 1924.—H. S. Thompson. Very near forma *nemorosa* Neum., but the stipule teeth are toothed, not fringed.—E.S.G.

V. ericetorum Schrad., forma *alba* (see last Report). Asheott Peat Moor, Somerset, May 16, maturer leaves, June 19, 1924. Also blue form from same ground.—H. S. Thompson. Good specimens of a very interesting violet.—E. S. Gregory. In reference to Mr. Thompson's note in the 1924 Report: "It would be interesting to know what Mrs. Gregory makes of *V. nemoralis* Jordan," I find a marginal note in my copy of *Flore de France*, by Rouy et Foucaud, which runs: "Description here and

Jordan's type do not agree. Jordan's plant in the Nat. Hist. Museum is more like our Woodwalton Fen plant." This means that *V. nemoralis* Jord. is near to *V. nemoralis* Kutzing, mentioned as a synonym on p. 100 of *British Violets*. —E.S.G.

V. canina L. (*pro parte*), var. *macrantha* Gren. et Godr. Berrow Sand-dunes, N. Somerset, June 28, 1924. This is the leathery violet, with large bluish flowers, frequent on that part of the sandy coast.—H. S. Thompson. Yes.—E.S.G.

V. tricolor L. (aggr.). Sandy field above Borden Wood, W. Sussex, v.c. 13, May 2, 1924.—J. E. Little. *V. variata* Jord. A very useful set. Some of the plants show considerable development of lower parts of the stems underground, and thus approach *V. lepida* in habit.—E. Drabble.

Polygala vulgaris L. Burleigh Meadows, Langley, Hitchin, Herts., Aug. 19, 1924.—J. E. Little. A somewhat puzzling set. On the whole, the gathering is nearest *P. vulgaris*, but some of the specimens verge towards *dubia*. I should like to see the growing plants to ascertain whether both species occurred there—and possibly hybrids—but such seem very rare in this genus. I detected a few plants of Corbière's var. *subciliata* (it seems too high a rank !) among the specimens and have so labelled them.—C.E.S.

P. calcarea F. Schultz. Rough pasture on Oolite, Combe Hay, N. Somerset, v.c. 6, June 1, 1921. Very rare in Somerset. —H. S. Thompson. Nice examples from one of its most westerly stations in England.—C.E.S.

Dianthus deltoides L. Deganwy Castle, Carnarvon, v.c. 49, July 9, 1912.—W. A. Shoolbred.

Saponaria Vaccaria L. Near Gravesend, W. Kent, v.c. 16, June 1924.—St. John Marriott. Of this alien White points out in *Flora of Bristol* that it was omitted from the tenth edition of Lond. Cat. "It will be a plant that will be always with us, without doubt, and no good can be served by ignoring its presence."—H.S.T.

Cerastium vulgatum L. var. *alpinum* Hartm. Llyn Clogwyn (c. 2500 ft.), amongst mosses at side of lake, Carnarvonshire, v.c. 49, Aug. 8, 1924.—D. G. Catcheside. Not *C. vulgatum*, but clearly *C. arcticum* Lange.—C.E.S.

Sagina ciliata Fries. Chiefly the glandular form. Sand Point, N. Somerset, July 5, 1924.—H. S. Thompson. This is a small

state, due perhaps to exposure, of *S. filicaulis* Jord. It holds a middle position between *apetala* and *ciliata*. The sepals are not invariably appressed to the ripe capsule, and it differs from both species by its more filiform peduncles, smaller flowers, etc. From *S. ciliata* it is distinguished by its sepals being less acute, shorter in proportion to its ripe capsule, etc. I am not surprised Mr. Thompson named it *ciliata*; Corbière considered it a variety of that species.—C.E.S.

Spergula sativa Boenn. Waste ground, Mitcham Common, Surrey, Aug. 1924.—J. L. O'Loughlin. This is *S. vulgaris* Boenn, far more common in Surrey than *S. sativa*.—C.E.S. No. This is *S. vulgaris* Boenn. (*S. arvensis* L em.) as is clear from the papillate seeds, which lack the wider membranous margin of *sativa*. The papillae are deciduous, as Syme (E. B.) remarks, and have entirely disappeared from some seeds. Both the papillae and the margin in these species are elastic, and possibly assist in distribution, as the seeds jump when lightly rubbed.—W. C. Barton.

Elatine hexandra DC. S. side of Hedgecourt Pool, near Felbridge, Surrey, v.c. 17, Sept. 1923.—J. L. O'Loughlin.

Hypericum elatum Ait. Grown in the University Garden, Bristol, Aug. 1920.—J. W. White. Mr. White knows this better than I do.—C.E.S.

Tilia platyphyllos Scop. From planted trees at Stoke Bishop, Bristol, July 9 and Sept. 6, 1924.—J. W. White. Yes, characteristic.—A.B.J.

Geranium sylvaticum L., var. *parviflorum* Blytt. Burnside, near Fortingal, Perth, v.c. 88, July 6, 1913.—W. A. Shoolbred.

G. Robertianum L., var. *purpureum* Vill. emend. Observatory Hill, Clifton, W. Gloster, v.c. 34, June 28, 1924. First recorded by Mr. C. Wall. A good clump growing amongst *G. rotundifolium*. The flowers measured 8mm. across.—Ida M. Roper. Yes, *G. purpureum* Vill. emend. Godron 1854 (in Mem. Soc. Emul. Doubs ser. ii, V. 19), but not a var. of *G. Robertianum* L. It is a good species distinguished by many characters throughout the plant. I take this opportunity of correcting the reference given in Journ. of Bot. 1921, 94 (error due to a mislaid note.)—A. J. Wilmot.

Erodium. Several specimens were sent by two members which were too scrappy for Mr. Salmon to determine. "Notes should be made as to petals spotted or not, colour of anthers and stigma, etc., before pressing."

Rhamnus Alaternus L. Thicket on limestone of Penpole Point, near Avonmouth, W. Gloster, May 9, 1924. Three large and one young shrub observed of recent years. Origin unknown. —H. S. Thompson. Undoubtedly of cultivated origin. It was well known in English gardens as long ago as 1700 and introduced much earlier.—A.B.J.

Ononis repens L. var. *horrida* Lange. Coast of Sand Bay, N. Somerset, July 18, 1924.—H. S. Thompson. It is noteworthy that while in Britain two perennial British species of *Ononis* only are recognised, viz., *O. spinosa* L. and *O. repens* L., the spiny, prostrate plant of our seashores being treated as a var. *horrida* Lange of the latter, recent continental authors, such as Willkomm and Lange (*Flora Hispanica*) and Rouy (*Flore de France*) regard these plants as three distinct species, *O. campestris* Koch & Zig. (= *O. spinosa*), *O. procurrens* Wallr. (our plant of the chalk hills, etc.), and *O. repens* L. (our maritime form). The grounds for the specific separation of the two last named do not appear very clear.—H.W.P.

Trifolium striatum L., var. *erectum* Leight. Roadside bank near Cheddon Fitzpaine, S. Somerset, June 7 and 18. Some plants 18 inches high.—W. D. Miller and H. S. Thompson. This agrees well with Lightfoot's description. Has it been tested scientifically ? I gathered the same form in a cornfield at La Corbière, Jersey, in 1923 ; but comparing it with the type which grew on the open near by I strongly suspected the differences might be due to soil and situation.—W. C. Barton.

T. procumbens L. A monstrous case of phyllody. Rough pasture, Bull's Hill, Marshfield, W. Gloster, v.c. 34, Sept. 18, 1924. In some considerable quantity.—H. S. Thompson.

Lotus hispidus Desf. Near Morte Point, N. Devon, Aug. 1924. —Coll. Miss Cook. Comm. W. Biddiscombe.

Tetragonolobus siliquosus L. Rough pastures, Bull's Hill, Marshfield, W. Gloster, v.c. 34, Aug. 31 and Sept. 18, 1924. Discovered there this year by the Rev. E. Ellman. On Aug. 31 I saw it in greater or less abundance in four enclosures at about 500 feet. The formation of the valley comprises a varying series of clays, sands, and oolites. Although part of the ground was laid down to grass as recently as about 1914, much of the pasture dates back forty years or so, and we have been told that the Lotus has been known there many years. It is extremely abundant on the north slope of the narrow valley, and it is accompanied here and there with such plants as *Euphrasia*,

Cirsium eriophorum (rare in that county), *Scabiosa columbaria*, *S. arvensis*, Bee and Frog Orchises, etc. Its possible origin has been investigated by several botanists.—H. S. Thompson.

Vicia Orobus DC. Among mowing grass on the Mendip plateau near Charterhouse, N. Somerset, June 26, 1924. Many of the plants are nearly prostrate and shrubby through frequent mowing.—H.S.T.

Spiraea sp. ? Established on island and river bank near Conan, E. Ross, v.c. 106, July 16, 1909.—W. A. Shoolbred. This is *Niellia amureusis* Benth. et Hook. fil. = *Physocarpus amureusis* Maximowicz. Matched with specimens at the Brit. Mus.—W.R.S.

Prunus domestica × *iusititia*. Great Wymondley, Herts, April 3 and Aug. 30, 1923. See W.E.C.R. 1919, p. 98.—J. E. Little.

P. Padus L. Hedges, Middleton-in-Teesdale, Durham, v.c. 66, May 20, 1924.—Ida M. Roper.

Rubus lasioclados Focke, var. *angustifolius* Rogers. Durdham Down, Bristol, v.c. 34, July and Sept. 1924.—Jas. W. White. Without being strikingly characteristic in panicle, this undoubtedly comes under Rogers' *angustifolius*.—H. J. Riddelsdell. Certainly.—W. C. Barton.

R. Kaltenbachii Metsch. Open woodland, Leigh Woods, N. Somerset, July 15, 1921.—Jas. W. White. Yes; the plant of Rogers' Handbook, showing well the charaeteristic panicle.—W.C.B. This is what we have learnt to call *Kaltenbachii* Metsch. Focke, in his *Species Ruborum*, p. 475, unfortunately does not indicate the distribution of *Kaltenbachii*, and I cannot tell if he still thought in 1914 that our plant is correctly named. He groups *Kaltenbachii* under *Guentheri* Wh. & Nees (one of the two sub-species of aggregate *hirtus*).—H.J.R.

Rubus ——— Mitcham Common, Surrey, v.c. 17, July 1924. Petals pink; styles green, shorter than the slightly pinkish filaments. Panicle ultra-axillary. Is it a weak form of *R. Gelertii* Frider.—D. G. Catcheside. *R. pyramidalis* × *rusticanus*.—W. Watson. There are characters here both of *caesius* and of *rusticanus*; and though (in the absence of notes) any suggestion savours too much of guessing, there is a *prima facie* probability of the gathering being from a hybrid bush *caesius* × *rusticanus*.—H.J.R. The characters seem to indicate a hybrid of *rusticanus* with *caesius*, and if these two species were present it might be so named with some confidence. Material spoilt by being dried under too little pressure.—W.C.B.

R. caesius × *rusticanus.* Hedgerow, Tockington, W. Gloster, v.c. 34, Aug. 14, 1924.—Ida M. Roper. There is nothing against this hybrid detn. that I can see; but as Miss Roper knows what species accompanied the bush from which she gathered she can speak with more certainty.—H.J.R. Certainly a hybrid, and quite probably as named; but a note of the species in the immediate neighbourhood should be sent, as it is usually impossible to be sure of a cross from dried material alone.—W.C.B.

Rosa ——— ? × *Shoolbredi* Wolley-Dod. Waste ground by Calder Burn, Newtown Moor, W. Inverness, v.c. 96, July 21, 1911.—W. A. Shoolbred. This is *R. omissa* Déségl., var. *typica* R. Kell., a fairly typical form, on which no special remarks are called for.—A.H.W-D.

Saxifraga umbrosa L., var. *genuina* Syme. Cult. at Wimbledon (June 15, 1924). Origin, Heseldon Glen, Yorks., 1919.—H.W.P. This is the variety *genuina* Syme, E. B., ed. iii, IV, p. 70, collected in the glen where it was originally discovered in 1792. It is distinguished by Syme as having "leaves spreading, in compact rosettes; lamina oblong-obovate, crenate; petioles short," while the usual Irish form, var. *punctata* Haworth, is diagnosed "leaves ascending, in rather lax rosettes; lamina obovate-roundish, crenate-serrate; petioles longer than in *genuina.*" The leaves of var. *genuina* are also notable for their very dark colour and marked cartilaginous margins, and for the remarkably broad, truncate apical tooth. Both of these varieties differ from the "London Pride" of British gardens, which has leaves of somewhat intermediate form, long-petioled and ascending as in var. *punctata*, with crenate margins, but not apically truncate. Its flowers are larger than those of var. *genuina*, with broader, more finely-speckled petals. This form is represented in Herb. Mus. Brit. by specimens from the Chelsea Garden, and by material from Culborne, Somerset; Thorp Arch, Yorks.; Ashwood Dale, Derby; and Dingle, Kerry, In these places it has been introduced, unless possibly wild at Dingle. I have seen no certainly wild examples that match this form, which Marshall and other authors do not seem to have distinguished from var. *genuina.* The variety *genuina* occurs in Britain only in a few Yorkshire glens, where it has been considered a native by Babington and other good botanists who have seen it *in situ.* It appears to be identical with the Pyrenean form of the species, while the Irish variety *punctata* coincides with the plant growing in the mountains of Asturias and Portugal. This interesting fact is readily seen on going through the material in Herb. Mus. Brit. and the

difference between the two forms in Spain is noted by Willkomm and Lange (Fl. Hisp. iii. 125). The variety *genuina* seeds readily in my garden, but I have never found a seedling of "London Pride."—H. W. Pugsley.

Callitriche sp.. Watercress beds, Darenth, W. Kent, v.c. 16, July 1924.—St. John Marriott. The fruit is too unripe to section it, but if not *stagnalis* it is more probably *obtusangula* Le Gall. The habit, leaves, etc., are more like the latter.—A. Bennett.

Epilobium obscurum Schreb. [608] Marsh on R. Inny, below Davidstowe, N. Cornwall, Sept. 12, 1924. "Stoles with few distant pairs of opposite leaves" (Hooker). Buds erect, but hardly acute, as Hooker says.—J. E. Little. An unusually robust and erect form of this, in habit recalling *E. Lamyi* F. Schultz.—H.W.P.

E. alsinefolium Vill. Stream side, Cock Bridge, S. Aberdeen, July 17, 1905.—W. A. Shoolbred.

? *E. alsinefolium* × *obscurum*. By the Conglass, near Tomintoul, Banff, v.c. 94, July 25, 1905.—W. A. Shoolbred. I think the hybrid suggested. Apparently quite sterile.—H.W.P.

Carum Bulbocastanum Koch (fruits). Wilbury Hill, Herts, Aug. 5, 1224.—J. E. Little.

Seseli Libanotis Koch (fruits). Ex Arbury Banks, Herts. Grown on balk at Little Almshoe, Herts, Sept. 26, 1924.—J. E. Little.

Caucalis daucoides L. Waste ground Stapleton, W. Gloster, v.c. 34, June 23, 1924. Ida M. Roper.

Hedera Helix L., var. *borealis* Druce. Hedge bottom, Alveston, W. Gloster, v.c. 34, Dec. 9, 1924.—Ida M. Roper.

Galium asperum Schreb., var. *nitidulum* (Thuill.). Tomintoul, Banff, v.c. 94, July 11, 1905.—W. A. Shoolbred. This plant seems identical with that occurring in various British localities, *e.g.* Teesdale and Cheddar, which has been identified as the specific type. The form of S.E. England that has been named var. *nitidulum* is a larger and more erect plant, with narrower and more revolute leaves. The varieties of this species in Britain require further investigation.—H. W. Pugsley.

G. palustre, var. *elongatum* Presl. Lane N. of Horsell Common, Woking, Surrey, Sept. 1924.—W. Biddiscombe. This plant, though robust, cannot, I think, be referred to var. *elongatum*

(*G. elongatum* Presl.), which according to Rouy (Fl. France, viii, p 43) has very smooth stems, much thickened at the nodes, and lanceolate leaves, not dilated towards the apex. It seems nearer to var. *umbrosum* Aschers., Fl. Brand, as described by Rouy (*l.c.*) I have collected in Surrey a robust form of *G. palustre* that differs from this plant and agrees with the description of var. *elongatum*. —H.W.P. This does not quite agree with the true *G. elongatum* Presl., but it is the var. *elongatum* of some British authors. The true *elongatum* has leaves attenuated at the summit and ample, many-flowered panicles. This plant is a form of var. *umbrosum* Ascherson. Dr. Cesarina Chiti in Nuov. Giorn. Bot. Ital. Nuov. ser. XVI, has a careful paper on these plants. Ascherson, in Flor. Brandenb., describes var. *umbrosum* as follows (trans.): Leaves large, thin, linear-obovate, in approximating whorls Inflorescence few-flowered. Shady marshy places. There seems to be a slight discrepancy between this and Rouy's description of the plant. The latter says that the panicles are "large, many-flowered."—E. G. Baker.

Inula crithmoides L. Tenby, Pemb., v.c. 45.—Miss M. Brown. Comm. Nat. Mus. of Wales.

Galinsoga parviflora Cav. Mitcham, Surrey, v.c. 17, Aug. 6, 1924.—J. L. O'Loughlin.

Achillea nobilis L. Cardiff Docks, Glamorgan, v.c. 41, Sept. 1924.—A. E. Wade. Comm. Nat. Mus. of Wales.

Artemisia campestris L. Devil's Dyke, near Cranwich, W. Norfolk, v.c. 28, Oct. 10, 1924. The locality was recorded in 1840.—J. E. Little.

A. maritima L., var. *gallica* (Willd.). Salting, Canvey Island, Essex, v.c. 21, Oct. 4, 1924.—D. G. Catcheside. Also sent by J. L. O'Loughlin. Both these gatherings are the type only.—W. R. Sherrin.

Petasites ovatus Hill, var. *hybrida* (L.). By River Wye, Miller's Dale, Derby, v.c. 57, May 16, 1924.—Ida M. Roper.

P. albus Gaertn. Cult. in the University Garden, Bristol, Mar. 12 and May 15, 1924. This is sometimes confused with *P. niveus*, which has triangular leaves snow-white on the under surface.—Jas. W. White.

Senecio sarracenicus L. *pro parte.* Alien or denizen. Left bank of River Chew, in several places near Compton Dando, N. Somerset, Aug. 23, 1924.—H. S. Thompson. Mr. J. W. White observes, in the *Flora of Bristol*, that "Our plant has a creeping

rootstock with elongated stolons, and so is the variety 'radice maxime repente,' mentioned but not named in the *Species Plantarum*, ed. 1. It would be more correctly classed as *S. fluviatilis* Wallr. = *S. salicetorum* Godr. Linnæus' *S. sarracenicus* = *S. Fuchsii* Gmelin is another plant . . . and of quite other habitats, frequenting moist places in woods and wood-borders [often among boulders] in Alpine districts up to say 5—6000 ft." Colonies of the young and very erect shoots seen in the meadow grass at the end of April, 1925, when fishing in the Chew, look strange, and would be puzzling unless one had seen the plant in autumn.—H.S.T.

Cnicus pratensis Willd., var. *polycephalus* Druce. Meadow, Ashcott Moor, N. Somerset, v.c. 6, June 19, 1924.—Ida M. Roper. A not infrequent form; but *Cirsium britannicum* Scop. is a better name for the type. Will members look for the scarce hybrid with *palustre*, which is wanted on the Continent (particularly by Dr. Petrak) as well as at home?—H.S.T.

C. arvensis Hoffm., var. *vestitus* Koch. Waste ground, Cambridge, July 29, 1924.—A. J. Crosfield. Koch's name for this is *Cirsium arvense δ vestitum* in his *Synopsis*, Ed. 2, Vol. 2, 457 (1844). In that work he gives a very full and possibly overlooked account, by C. von Naegeli, of *Cirsium* with its varieties and hybrids.—H.S.T.

Centaurea obscura Jord., f. *radiata* C. E. Britton. Tors, Ilfracombe, N. Devon, v.c. 4, July 14, 1924.—D. G. Catcheside. Although the appendages are very dark, I am afraid that these specimens must be placed to *C. nemoralis* rather than to *C. obscura*. In shape and size the capituli are just those of the first-named. *C. obscura* should have sturdier-looking heads. The foliage is, on the whole, fairly uniform, and brings the plants to what I have called *C. nemoralis* Jord., var. *subintegra* f. *radiata*.—C. E. Britton.

C. nemoralis Jord. *forma* det. C. E. Britton. Claudon, Surrey, v.c. 17, Aug. 2, 1923.—W. R. Sherrin. Comm. J. L. O'Loughlin.

C. aspera Linn. Le Quenvais, Jersey, May 31, 1896.—J. W. White. A few of the more vigorous specimens of this gathering, with the leaf bases distinctly auriculate, may be safely placed to var. *auricularia* DC. in Prodr. 6, p. 600, described in the following terms: "foliis inciso-dentatis basi utrinque auriculatis amplexicaulibus." I have indicated the specimens that, in my opinion, may pass as the variety.—C. E. Britton.

Hieracium anglicum Fr., var. *cerinthiforme* Backh. (Ref. No. 636). Ullapool Burn, W. Sutherland, v.c. 108, July 20, 1908.—W. A. Shoolbred. A well-marked form of this distinct variety, very similar to that so abundant near Clova. The leaves of var. *cerinthiforme* vary from subentire to deeply dentate, and the heads are sometimes much darker and more glandular than in these specimens, simulating those of *H. Marshalli* Linton. It is noteworthy that Backhouse (Mon. Hier. p. 36) placed *H. anglicum* among the *nigrescentia*.—H. W. Pugsley.

H. silvaticum Gouan. Burford Bridge, Surrey, v.c. 17, Aug. 5, 1924.—J. L. O'Loughlin. This interesting hawkweed is not *H. sylvaticum* Gouan, which differs essentially by the clothing of its heads not being wholly or even chiefly glandular, and is not known, I think, in the south of England. Mr. O'Loughlin's plant falls within Linton's group *subvulgata*, among the species characterised by "heads glandular, epilose or nearly so." Its habit recalls *H. pellucidum* Laest. (*H. lucidulum* Ley), but its leaves are less truncate-based than in that plant, and it lacks the conspicuously white pappus. It agrees closely with Linton's description of *H. serratifrons*, var. *lepistoides* (Johansson), which is recorded for Surrey, and with specimens so named in Herb. Mus. Brit. The forms of *H. serratifrons* occur chiefly in the west and south of England, and seem to require comparison with the French as well as the Scandinavian allied forms.—H.W.P.

H. [*gothicum* Fries]. Styles yellow. Wet banks above Cwm-y-glo, Carnarvon, v.c. 49, Aug. 30, 1924.—J. L. O'Loughlin. Is *H. umbellatum*.—H.W.P.

H. rigidum Hartm. Burford Bridge, Surrey, v.c. 17, June 14, 1923.—J. L. O'Loughlin. This is not *H. rigidum*, but one of the *Eu-Vulgata*. It is very close to *H. vulgatum* Fr., but its cauline leaves are abnormally numerous, broad, and glabrate for that species, and its heads too glandular. I collected this plant at Burford Bridge in 1922, and have it under cultivation; but I cannot name it at present. I suspect that, like the spotted-leaved hawkweed of the railway banks near Kingswood, it is a recent introduction in Surrey, probably during the great war, and perhaps from France. In June, 1921, I gathered at St. Pierre Vauvray, in Normandy, an almost exactly similar hawkweed, which remains unnamed.—H.W.P.

H. cambricum F. J. Hanb. Great Orme's Head, Carnarvon, 1912.—W. A. Shoolbred. Correct. The specimens are only in bud, but are quite unmistakeable.—H.W.P.

H. umbellatum L., var. *littoreum* Arv.-Touv. Hedge bank, near Watermouth Bay, Ilfracombe, N. Devon, v.c. 4, Aug. 11, 1924.—D. G. Catcheside. Arvet-Touvet's variety *littoreum*, which is not kept up in Rouy's Fl. de France, is separated from the type as a tall plant ("tige élevée") with stem very shaggy below and a long paniele. This does not agree with Mr. Catcheside's specimens. A similar North Devon form of *H. umbellatum*, with relatively broad leaves, compact panicle, and broad phyllaries, has been previously distributed through the Exchange Clubs, and the varietal name *monticola* Arv.-Touv. has been twice suggested for it. This variety *monticola*, however, is a plant of alpine and sub-alpine pastures of the French Alps, with narrow, linear-oblong leaves and larges, blacker heads than are seen in Devon. It is well represented in Herb. Mus. Brit. from Lautaret and other alpine habitats. The present plant apparently comes nearest to our *curtum* Linton (Journ. Bot. xxxi. p. 201), which was originally described as a dwarf plant, although in *British Hieracia* this feature is not mentioned. It is stated by Linton to be very close to var. *monticola*, but its leaves are much broader, and some North Welsh examples, which are not dwarf, seem indistinguishable from North Devon plants. Mr. Catcheside's specimens have less toothed leaves than most Devon specimens, and in this respect resemble the peculiar Jersey form referred to var. *littoreum*, but their other features seem to be those of var. *curtum*, and I think that they are best included under this name. —H. W. Pugsley.

Campanula patula L. Border of wood near Redbrook, W. Gloster, v.c. 34, July 23, 1924.—W. A. Shoolbred.

Hemizonia pungens Torrey & Gray. Waste ground near Gas Works, Hitchin, Herts., v.c. 20, Aug. 13, 1924.—J. E. Little. This appears to be a genus of about 25 spp. from west N. America.—H.S.T.

Statice maritima Mill. ? var. *planifolia*. Glen Lochy, E. Perth, v.c. 69, July 13, 1906.—W. A. Shoolbred. This is the same as E. S. Marshall's No. 2943, on which (in Herb. Mus. Brit.) Marshall notes, "This is my *S. linearifolia*, var. *planifolia* (Syme): G. C. Druce in litt."—A. J. Wilmott. Plants of this same gathering, collected by E. S. Marshall and labelled "*A. maritima* Willd. (alpine form)," were distributed through the Club in 1906 (see Rep. 1906—7, p 106). Mr. A. Bennett considered the leaves too narrow for Syme's variety *planifolia*. I submitted Mr. Marshall's plant to the late Clement Reid, who thought it

"*planifolia* with leaves somewhat narrow." Dr. Shoolbred's specimens are clearly pleurotrichous, and I should label them *A. pubescens* Link, var. *planifolia* Syme (not extreme).—C. E. Salmon.

Anagallis arvensis L., f. *ternata* Williams. Open ground, Tyntesfield, Wraxall, N. Somerset, Nov. 11, 1924.—Ida M. Roper. Yes. I gathered the same form in 1895 in a roadside ditch near Calne, v.c. 7. Also some years later a similar variation of *A. femina*, which Williams does not mention Rouy gives both in Fl. France. An interesting phylogenetic character, which also appears in *Lysimachia*.—W. C. Barton.

Myosotis palustris Hill, var. *strigulosa* (Reichb.). Shetland, 1924.—R. J. Burdon. The short triangular calyx teeth and style equalling the corolla tube, with stem pubescence appressed, are right for *strigulosa* Reichb. The stem seems to be distinctly angular in my specimens, which, however, are not well dried, and are rather badly mildewed.—W. C. Barton.

M. sylvatica L. One sheet sent for record in N. Somerset, v.c. 6. Limeridge Wood, in dense growth among *Vicia sylvatica*, etc., and probably introduced from the North of England with young larch or other trees to this somewhat recently replanted portion of the extensive wood. May 23, 1924.—H. S Thompson.

Verbascum nigrum Linn., var. *tomentosum* Bab. Happy Valley, Box Hill, Surrey, v.c. 17, Aug. 5, 1924. In Herb. South Lond. Bot. Inst. there is a specimen of this plant from Tilford, Surrey, collected by the late E. S. Marshall, of which he says: "I have no type specimen of Babington's plant." Beeby has it from two Surrey localities.—J. L. O'Loughlin. A rather poor example, which is difficult to name, but it agrees better with descriptions of the variety than with the type. Not so extreme as the Alderney plant; but Beeby found the variety in Surrey many years ago, so it *does* occur in the country.—C.E.S. My sheet contains one flowering branch without petals and with a single leaf at its base. So far as one can tell from such material it is correctly named. The purple filament hairs are just distinguishable, and the leaf is woolly beneath and more or less so above. Flowers separately dried, and at least one of the lower leaves should be included to make a sheet worth distributing or sufficient for study.—W. C. Barton.

V. Blattaria L. Thicket near Bleadon, N. Somerset, July 22, 1924. First observed in this new locality with H. W. Pugsley on May 3rd. By June 10th several dozen strong plants, 2—3 ft.

high, were observed, but none yet even in bud. The flowers are white with pale violet flush, and the two small upper lobes are pink underneath. Several *V. Thapsus* were in the same colony in the dense brushwood, but hitherto there is no sign of hybrids. —H. S. Thompson.

Euphrasia Rostkoviana Hayne [599]. Kittow's Moor, near Treneglos, N. Cornwall, v.c. 2, Aug. 28 and Sept. 14, 1924. Kittow's Moor and Wilsey Down are adjacent. No. 599 varied from a whitish ground colour in the corolla to rather deep purple, so that the soil, which was a barren moor overlying slate rather strongly impregnated with iron, is not entirely responsible for those of deeper colour.—J. E. Little. This is a fine set of specimens representing a form intermediate between the ordinary British *E. Rostkoviana* and *E. Vigursii*, with the strict habit of *E. hirtella*. About a quarter of the plants have deep purple *Vigursii*-like flowers, while in the majority the upper lip is bluish and the lower one white, as in a Surrey form of *E. Rostkoviana*. A few individuals show a corolla of intermediate colouring, very heavily and beautifully striped. This particular form seems to have no distinctive name.—H. W. Pugsley.

E. gracilis Fr. [603]. Kittow's Moor, N. Cornwall, v.c. 2, Aug. 28, 1924. Flowers very small, but brightly coloured; growing intermixed with *E. Rostkoviana*.—J. E. Little. Correctly named. The specimens are taller and less branched than those usually met with in Scotland.—H.W.P.

E. hirtella Jord. Between Llanberris and Cwm-y-glo, Carnarvon, v.c. 49, Aug 30, 1924.—J. L. O'Loughlin. This may be rightly named, but it is difficult to be certain with starved and scrappy material.—H.W.P.

E. [*nemorosa* Gremli] [606]. Wilsey Down, N. Cornwall, Aug. 24, 1924. Ground colour of the corolla an unusually deep purple.—J. E. Little. This is a vigorous form of *E. confusa* Pugsl., with purplish flowers such as I have not seen before. I should refer it to f. *albida*, extending the diagnosis of that form (Journ. Bot. lx. p. 2, 1922) to cover it thus: "Planta corollis albidis *vel purpureis* nec luteis . . . ."—H.W.P. I would refer this to *E. Kerneri*.—W.H.P.

E. nemorosa Gremli [607]. Roadside, near Tresoke, Davidstone, N. Cornwall, Aug. 24, 1924. Ground colour of the corolla whitish.—J. E. Little. A slender form of *E. nemorosa* H. von Martins.—H.W.P.

E. [*scotica* Wettst.] Above Llyn Padarn, Carnarvon, v.c. 49, Aug. 30, 1924.—J. L. O'Loughlin. This is not *E. scotica*, but an unbranched form of *E. nemorosa* resembling it. In *E. scotica* the stem is slenderer and more strict, with much longer internodes and fewer leaves with less acute teeth. Its corolla is also smaller. —H.W.P.

Euphrasia ——— Rough pasture, Bull's Hill, Marshfield, W. Gloster, Aug. 30 and Sept. 18, 1924.—H. S. Thompson. One of the slender forms of *E. nemorosa*, approaching *E. gracilis* Fr.—H.W.P.

E. curta Wettst., var. *glabrescens* Wettst. [No. 413] Criccieth, Carnarvonshire, v.c. 49, Sept. 4, 1924.—H. W. Pugsley. These specimens, which unfortunately are not well dried owing to the wet weather during my stay at Criccieth, represent what I believe to be the plant intended by Wettstein under this varietal name (Mon. Euphrasia, p. 133). Some are so hairy that they might almost be regarded as typical *E curta*, while others show very few hairs indeed on the foliage, though more on the calyx. The material was collected over a considerable area of rough common near the sea, where no other Eyebright was seen; and though there was a little *E. gracilis* in one spot in the vicinity, I think it unlikely that any of the specimens are hybrids. Wettstein states that *E. curta*, var. *glabrescens* can be best distinguished from *E. nemorosa*, which, he says, is always eompletely glabrous, by the presence of bristly hairs on the upper side and edges of the leaves. Many British plants, however, which otherwise do not agree with *E. curta*, but rather with *E. nemorosa*, produce short foliar hairs, especially on the leaf-margins, and these have been distinguished by Dr. Drabble as *E. nemorosa*, var. *ciliata* in Journ. Bot. liv. 75 (1916). Formerly sueh forms were often named by British botanists *E. curta*, var. *glabrescens*, and some of them seem to form connecting links between the two species. Rouy (Fl. Fr. xi. 154) follows Chabert in reducing *E. curta* to a variety of *E. nemorosa*. Wettstein relies largely on the different geographical area of the two plants for their separation as species, and *E. curta* is evidently the more northern form. But the monographer's distribution for Britain is inaccurate. He shows *E. curta* as extending from the extreme north of Scotland, down the east and south coasts to the Isle of Wight, and the range of *E. nemorosa* as contiguous with it on the west, without overlapping but ineluding the greater part both of England and Scotland. Townsend pointed out that the *E. curta* of the Isle of Wight was *E. occidentalis*, and later records show that the oceur-

rence of *E. curta* south of Carnarvonshire and Derbyshire is doubtful, and that it is most generally distributed in Scotland. On the other hand, forms referred to *E. nemorosa* are common throughout almost the whole of England and Wales, in the east as much as in the west, but it becomes scarce across the border. In Carnarvonshire both plants occur, and typical *E. curta* grows in the Isle of Man. The status of these two plants seems to require further consideration, which is complicated by the numerous different British forms usually included under *E. nemorosa*.—H. W. Pugsley.

Rhinanthus major Ehrh. Shipham, N. Somerset, June 26, 1924. In plenty on derelict arable ground full of *Trifolium hybridum*, *Orobanche minor*, various grasses, etc.—H. S. Thompson. I have seen this interesting Somerset *Rhinanthus* before and noted then that it can scarcely come under *major*, unless as a variety. The flowers are too small, the corolla appendages not long enough, etc. The seeds are those of *R. minor* Ehrh., of which it seems a robust form—or *possibly R. major* × *minor* (× *R. fallax*). I should very much like to see examples in good foliage gathered a little earlier. The same form occurs in Dorset (Wareham).—C.E.S. I think correct.—A.B.

Orobanche elatior Sutton, on *Centaurea Scabiosa*. Banstead Downs, Surrey, v.c. 17, July 31, 1924.—E. C. Wallace, Comm. D. G. Catcheside.

× *Mentha hircina* Hull (*M. aquatica* × *longifolia*). In a damp grassy lane above Weston-in-Gordano, N. Somerset, Sept. 5, 1924. See Rep. B.E.C. 1919, p. 834.—Jas. W. White. Beautiful specimens of this rare mint. I have not seen a type of Hull's plant, so cannot add anything of value as to the name *hircina*.—C.E.S. If you take the *palustris* form of *pubescens* these specimens do not look much like it, but the calyx-teeth are much longer than in *aquatica* and the calyx more *longifolia* like. The pubescence of the lower surface of the leaves seems variable, some answer very well to the *hircina* description, others approach the *palustris* Sole ; but the spikes are quite against it being *palustris*, this has spikes much more like *longifolia*. I have not seen a specimen named by Hull, but the var. *palustris* Sole placed under *pubescens* has no place there. I had Willdenow's mints sent to me, and there is no *pubescens* among them ; and the Abbé Strail, Déséglise, and other writers on the genus, all agree that what we name *pubescens* Willd. is *M. nepetoides* Lejeune (1824). The following synonymy is given for it: *M. gratissima* Nolte,

M. latifolia Nolte, *M. sylvestris* × *aquatica* Doell, *M. nemorosa* × *aquatica* Doell. For remarks on *M. pubescens* as a British plant see: B.E.C. Report, 1887, p. 187, when the Abbé Strail (in litt. to me) discusses it; Watson B.E.C. Reports, 1892, p. 13; 1908, p. 199; 1912, p. 353.—A. Bennett.

M. gentilis L. [No. 412]. Criccieth, Carnarvonshire, Sept. 5, 1924.—H. W. Pugsley. These specimens represent a tall coarse form of *M. gentilis*, which probably owes its luxuriance to growth in the rich soil of a stream-bed. In this hybrid, if it be so, the stamens are, I believe, always shorter than the corolla—a point noticed by Linnaeus in his original diagnosis (Sp. Plant. 577), and by Smith (Fl. Brit. ii. 622). The single-stemmed specimens are the lower lateral branches of large plants. This form of *M. gentilis* somewhat recalls *M. rubra* Sm., but this latter not only has larger corollas with stamens generally exserted, but the hairs of its narrower calyx are more restricted to the teeth, and the plant's habit is more robust, less branched and normally still taller.—H.W.P.

M. arvensis L. ? Pale form growing under bracken and *Calamagrostis epigeios* on west slope of Shuteshelf Hill, Winscombe, N. Somerset, Aug. 4, 1924.—H. S. Thompson. This unbranched apparently erect form of *M. arvensis* appears to be close to var. *nummularia* (Schreb.) as understood by Boreau and Baker. I have not had the opportunity to consult Schreber. At the same time I should like to see plants gathered later, as they seem to be setting no fruit, and may prove to be a hybrid.—C.E.S. Correct, verging towards var. *praecox*.—A.B.

Galeopsis angustifolia Ehrh., var. *canescens* Schultz. Cornfields, Ashstead, Surrey, Aug. 2, 1924. Leg. E. C. Wallace. Comm. D. G. Catcheside. This is type only; the var. *canescens* has patent hairs on the upper part of the stem; the calyx teeth are also too long for the variety.—W. R. Sherrin.

Plantago Coronopus L., var. *pygmaea* Lange. On dry rocks, Bull Point, N. Devon, Aug. 12, 1924.—D. G. Catcheside. Correct.—E. G. Baker.

Chenopodium urbicum L. Isle of Wight, near farm, Shalfleet, Sept. 17, 1924. Coll. J. Groves. Comm. C. E. Salmon. This is *C. urbicum* L., var. *intermedium* Moq. (*C. intermedium* M. & K.), which is known from a number of localities in the Isle of Wight. In foliage it is very distinct from typical *C. urbicum*, and is placed by Rouy (Fl. France xii. p. 43) as a race, under the name of *C. microspermum* Wallr., which antedates *C. intermedium*.—H.W.P.

As noted in Rep. 1914—15, 506, *C. rubrum*, var. *blitoides* Wallr. is frequently mistaken, and reported, for the uncommon species. *C. urbicum*, as the excellent gathering by Mr. Groves shows, is known by its broader-based leaves, ± leafless axillary spikelets and its larger horizontal seeds.—C.E.S.

Salicornia [*ramosissima* Woods]. On the salting, Canvey Island, Essex, v.c. 21, Oct. 4, 1924.—D. G. Catcheside. *S. herbacea*.—E. J. Salisbury.

S. [*procumbens* Sm.] On the salting, Canvey Island, Essex, v.c. 21, Oct. 4, 1924.—D. G. Catcheside. These specimens all appear to be *S. herbacea* (f. *prostrata*). The procumbent habit simulating *S. prostrata* is usually due to tidal action or to the plants having been trodden on when young.—E.J.S.

S. dolichostachya Moss. Young plants, some of which may be × *ramosissima*, which, with *S. herbacea*, is in abundance there. Steart Island, at mouth of River Parrett, S. Somerset, v.c. 5, Aug. 13, 1923. N.C.R., as stated in Journ. Bot. 1924, p. 2.—H. S. Thompson. *S. dolichostachya*.—E.J.S.

Suaeda fruticosa Forsk. Wells, Norfolk, July 19, 1924.—A. J. Crosfield.

Polygonum dumetorum L. Wimbledon Wood, Wimbledon, Surrey, Oct. 3, 1909.—H. W. Pugsley. Wimbledon is one of the three original British localities (the other two being Reigate and Keynsham, near Bristol) in which this species was found prior to its description as a new British plant by Babington in E. B. Suppl. 2811 (1837). Brewer remarks in his *Flora of Surrey* that its appearance in its known stations is very irregular, and this is well illustrated in the spot that produced these specimens, where in most years it is not to be found, though appearing in certain seasons in considerable quantity. The vitality of the seeds evidently persists for a long period.—H.W.P.

Rumex obtusifolius × *pulcher*. Windmill Hill, Hitchin, Herts., June and Sept. 1924. For notes see Journ. Bot. 1924, 330.—J. E. Little.

Euphorbia hiberna Linn. Origin, bank of River Lyn, near Lynmouth, N. Devon, June 1, 1923.—S. H. Bickham. Cult. Ledbury.

E. Cyparissias L. Walton Downs, Surrey, v.c. 17, June 23, 1924.—E. C. Wallace. Comm. D. G. Catcheside. Mr. A. J. Wilmott agrees.

E. Paralias L. Seedlings. Berrow sands, N. Somerset, June 28, 1924. All in this gathering (25 sheets of at least 6 in each) from under one or two old plants.—H. S. Thompson.

Parietaria ramiflora Moench. (*officinalis* L. p.p.), var. *fallax.* Embankment of Thames near Mortlake, Surrey, v.c. 17, June 7, 1924.—D. G. Cateheside. This, I believe, is not the variety, whieh is a less-branched plant with longer leaves, recalling *P. erecta* M. & K.—H.W.P.

Betula pubescens Ehrh., var. —— Leaves glabrous. Moorland, 1600 to 1700 ft., Allt an t'Stuie, E. Inverness, v.e. 96, July 28, 1911.—W. A. Shoolbred. A shrubby form probably coming under *P. pubescens*, var. *denudata* G. et G. Fl. Fr. III, 147 (1856), whieh ineludes a series of forms having rhomic leaves tapering at the base, glabrous, or only slightly hairy beneath. Reeorded by Marshall, B.E.C. Rep. 1911, from the same loeality, and identified by him as *B. pubescens* Ehrh., var. *Friesii.*—A. B. Jackson.

Salix triandra L., var. *concolor* Koch. = *S. amygdalina* auct. Walton withy-bed, near Clevedon, N. Somerset, May 24 and Sept. 2, 1924. Leaves bright green on both sides, and so should be the variety or form *concolor.* This Walton plant, however, has been accepted as *S. amygdalina*, whieh Andersson, according to Buchanan White, regarded as equivalent to *discolor* Koch—the glaueous-leaved form. These forms grow together at Walton, and as it has been found that both glaucous and green leaves may be borne on the same plant, it eannot be worth while to trouble about such so-called varieties of *S. triandra.*—Jas. W. White. Correetly named. The narrowly-oblong leaves, nearly of equal width throughout the greater part of their length, and suddenly narrowed to both ends, are eharaeteristie of the typical form of *S. triandra*, as distinguished from *S. triandra* L., var. *amygdalina* (Sm.). Both have forms with the leaves green (*concolor*) on the under-surface, and glaucous there (*discolor*). The best form of the leaves is well shown upon the strong summer growths. All the sheets are full and well dried.—J. Fraser.

S. fragilis L. ♂ [592]. Confluence of Ippolyts Brook and Ash Brook, Hitchin, Herts., v.c. 20, May 15 and July 5, 1924.—J. E. Little. Right, I suppose.—E. F. Linton. This is what I call *S. fragilis* × *triandra.* Like Mr. Linton, I have my doubt as to what *S. fragilis*, var. *latifolia* is. I eollected some specimens which I thought might be it, and one of the largest leaves measures 8 × 1½ inches. A similarly large leaf on your No. 592 measures 5½ × 1½, but is not so equally tapered. Your leaves

are above the average for adult trees of *S. fragilis* × *triandra*.—J. Fraser. *S. decipiens* Hoffm. (perhaps = *fragilis* × *triandra*). Decisive, in my opinion, against *fragilis* are the much longer stamens, the almost rounded base of the leaves, which are also parallel-sided in the middle, and the strikingly glossy bark of the twigs. The fewness of the catkins is notable, and also the abundant sessile micro-glands on the upper surface of the leaves.—W. Watson.

S. fragilis L. ♀ [605]. Near Sewage Farm, Hitchin, Herts., Nov. 6, 1923, May 22 and July 29, 1924. Narrow ovaries (? unfertilized).—J. E. Little. *S. fragilis*.—E. F. Linton. I agree to this. If you compare this with the ♂ [592] you will see that the serrations of the leaves of this are deeper and more irregular in size and distance apart.—J. Fraser.

S. fragilis × *pentandra* ? ♂ [556]. Watercourse near West Mill, Hitchin, Herts., v.c. 20, May and Oct. 1923, May and Aug. 1924. For notes see last Report.—J. E. Little. I make this *alba* × *pentandra*. (1) Re *S. fragilis* × *pentandra*, Linton says, "Leaf-blades finely serrate, glabrous." Wimmer (Sal. Europ.) says, "Leaves regularly acutely cartilaginously serrate, pale green beneath; even young ones quite glabrous or very glabrous (etiam novella glaberrima)." (2) Re *S. alba* × *pentandra*: Linton says, "Leaf-blades pubescent at first, soon glabrous." Wimmer says, "Folia novella sericeo-pubescentia" (3) On a flowering branch of these specimens I can see three unfolded leaves that are quite silky on the back. I can scarcely go beyond the descriptions of the great author on *Salix*. May is the time to examine this willow for pubescence, which is mostly caducous.—J. Fraser. I think *S. alba* × *pentandra*, for the direction of the hairs on the underside of the upper expanded leaves on the year's shoots is exactly as in *alba*, not as in *fragilis*.—W. Watson.

S. Lapponum L. Near Dalwhinnie, Inverness, July 1911.—W. A. Shoolbred. A small, narrow-leaved form of *S. Lapponum*, with adpressed, almost silky pubescence on the underside of the leaves; and very close to, if not identical with, *S. Stuartiana* Sm., of course not now retained even as a variety, though rather distinct.—J. Fraser.

S. Lapponum × *repens*. Glen Shee, E. Perth, v.c. 89, July 11, 1906.—W. A. Shoolbred. Conforms very closely to the description of E. F. Linton in his Monograph of Brit. Willows, although that was mainly taken from the plant raised by the author in his garden. The hybrid is known only from the Lochy Burn, Glen

Shee, E. Perth, so far as Britain is concerned. The specimens are a prize to present-day collectors.—J. Fraser.

S. caprea × *Lapponum*. Near Falls of Lochy Burn, Glen Shee, E Perth, v.c. 89, July 13, 1906.—W. A. Shoolbred. This rare hybrid is also found at Clova, Forfarshire. The silky gloss of the under-surface of the leaves is characteristic of the hybrid, and even some of the minute stipules are present. The short styles, equalling the undivided stigmas, and the serrate-crenate margin of the leaves are derived from *S. caprea*. The size and shape of the leaves are largely influenced by *S. Lapponum*, and the adpressed pubescence by some forms of it.—J. Fraser.

S. Andersoniana Sm. ♀ (leaves only). Orcaber Lane, Austwick, W. Yorks, Sept 21, 1924. On my first visit to this, in May, the catkins were too young for gathering, but showed the glabrous ovaries of this species. I will endeavour to add them next year.—W. H. Pearsall. Has every appearance of being correctly named in the absence of catkins. The leaves are oval, serrated to the apex, more or less hairy, partly glabrescent, and blackened in drying. The form is very close to, if not identical with, the originally-named *S. Andersoniana* Sm. It hybridises very freely with *S. phylicifolia* L., hence the value of catkins.—J. Fraser.

S. aurita × *caprea* (*capreola* J. Kern.). Oxted Chalk Pits, Oxted, Surrey, v.c. 17. Leaves, Aug. 12, 1923; catkins, April 6, 1924. Some of the specimens were collected on May 18, 1924, from the same bush, which was 10 ft. high, but narrow. This is No. 453, and was a separate bush from No. 448. The lower leaves in both cases are entire, and more or less glabrescent by autumn, but the mature leaves show the small serratures, distinctive of this hybrid. I regret not having collected more of the mature leaves.—J. Fraser.

S. aurita × *caprea* (*capreola* J. Kern.). Oxted Chalk Pits, Oxted, Surrey, v.c. 17, April 6 and Aug. 3, 1924. A few from the same small bush on May 21, 1923, a little too late for the catkins, and too early for mature leaves. The striae under the bark of this hybrid are always few and short or absent; but I have not been able to supply a sample with all the specimens. The lower leaves are mostly entire, and the upper ones finely serrate, instead of having the large, wavy crenatures of *S. caprea*. —J. Fraser.

S. aurita × *caprea* ♀ [585]. Maidencroft, Hitchin, Herts., April 16 and July 2, 1924.—J. E. Little. The stipules support

the view that it is *S. aurita* × *caprea*.—E. F. Linton. I can only see *S. caprea* in this. The male catkins are on the small side, but the pointed braeteoles are there, as well as short styles. The large tomentose leaves are coarsely crenate-serrate, and without the fine serrations of the hybrid.—J. Fraser.

S. aurita × *caprea* ♂ [579] det. E. F. Linton. Westbury Wood, Offley, Herts., v.c. 20, April 24 and Sept. 27, 1924.—J. E. Little. *S. caprea* no doubt preponderates, but the serration of the leaves, and their size, and some twisted tips favour the view that it is an *aurita* eross, and I agree that it is *S. aurita* × *caprea*. —E. F. Linton. I agree with Mr. Linton that this is *S. aurita* × *caprea* on the *S. caprea* side. I have been grappling with this hybrid during 1923 and 1924, and though I am quite certain about most of them there are some others that puzzle me, and I think they are *S.* (*aurita* × *caprea*) × *caprea*, which [579] may be. Mine have many subglabrous leaves. Striation mostly weak always.—J. Fraser.

S. aurita × *cinerea* ♀ [531]. Pond near Brickyard Wood, Stow Bardolph, W. Norfolk, v.c. 28, Mareh 27, 1923, and Oct. 13, 1924.—J.E.L. I found some distinetly stipitate stipules. The leaves were gathered very late, and have dropped a good deal, as the branches had to be kept in water. It is curious that even earlier in the year it is very difficult to maintain the eondition of willow leaves in water.—J. E. Little. Probably *S. aurita* × *cinerea*.—E. F. Linton. The underside of the leaves is too densely pubescent to fit into *S. cinerea* L., var *aquatica* (Sm.) as described by Smith himself. I have collected a considerable number with this degree of hairiness this summer, and when I get catkins shall most likely label most of them *S. aurita* × *cinerea*. —J. Fraser. The rusty and black oblong catkin-scales and the more silvery capsules, with a short style, are best explained, I think, by *S. aurita* × *cinerea*.—W. Watson.

S. aurita × *cinerea* ♀ [582] det. E F. Linton. Oughton Head, Hitchin, Herts., v.c. 20, April 14 and Aug. 1, 1924.—J. E. Little. Twigs slender, reddish-brown, shortly and finely pubescent below, shining above Buds curtly oval, reddish, not quite glabrous, but somewhat shining. Striation long, rather scattered. Style short, but evident. This small bush of about 4 ft. high is very mueh nearer to *S. aurita* in several points than is No. 583, about a hundred yards away, which has been distributed this year through the B.E.C.—J.E.L. I agree to this, and would eonsider it a good intermediate.—J. Fraser.

S. aurita × *cinerea.* Blackdown, W. Sussex, April 23 and July 24, 1924.—R. J. Burdon. I agree. The leaves and the black scales of the catkins, both male and female, are nearer *S. cinerea* than the other parent. The slender catkins, both ♂ and ♀, the very short style, small ovary, and the rugosity of all the younger leaves, best seen from the underside, are ample evidence of the presence of *S. aurita.* The bluish pubescence of the younger leaves, mixed later with ± numerous red hairs, shows a combination of the two parents.—J. Fraser. Yes. Additional evidence of the presence of *cinerea* is to be found in the filaments, pilose in the lowest third part.—W. Watson.

S. aurita × *viminalis* Newark Mill, Ripley, Surrey, v.c. 17, Aug. 6, 1922, and April 29, 1923. A marked feature of this willow is the very short catkins, which are not typical of the hybrid in my experience. They should have been collected at the beginning of April, when their shortness would have been even more striking The stipules are also large for this hybrid, especially on strong shoots.—J. Fraser.

S. ferruginea G. Anders. Chevingum Farm, Godstone, Surrey, v.c. 17, May 6 and August 19, 1923. I write the name as above though I do not consider it a species. I regard it as a form of *S. cinerea* × *viminalis*, on account of the very short pubescence (not silky), and the numerous red hairs on the underside of the leaves. Sometimes the under surface is wholly rusty red, as the name implies. Some regard *S. ferruginea* as synonymous with *S. aurita* × *viminalis*, but there are good authorities for both these opinions.—J. Fraser.

S. herbacea L. Near Dalwhinnie, Inverness. July 1911.—W. A. Shoolbred. An uncommonly large leaved and large catkined form of *S. herbacea.* It is sometimes found on the margins of grassy ledges, or at the foot of rocks in sheltered places. The serratures of the fruiting pieces are much deeper than I have hitherto seen and are really remarkable.—J. Fraser.

Helleborine purpurata (Sm.). Box Hill, Surrey, v.c. 17, Aug. 5, 1924.—J. L. O'Loughlin. How this plant came to be regarded as an ambiguity I cannot comprehend. It is well figured in Eng. Bot., plate 2775, as *Epipactis purpurata* Smith. The characteristic purple colour is shown, and the old botanists, *e.g.* J. D. Salmon, knew it from Reigate and Box Hill, where it still grows. In Syme Eng. Bot. plate 2775 is *copied*, but the purple coloration is removed and the name altered to *Epipactis media*—a quite unjustifiable piece of botanical legerdemain. On

Box Hill it grows both in tufts and as separate plants.—J.L.O'L. Perhaps more strictly styled *H. purpurata* (Smith) Druce, or still better *H. violacea* (Boreau) Druce. Yes, one does not go to Syme's Ed. of Eng. Bot. for well-coloured plates; most of them bear no comparison with those of Eds. 1 and 2. The colouring of this plate (*E. purpurata*) in my copy of the second Ed. is good, but the colour of plates varies considerably in different issues (there were two re-issues of Vols. I—VII) and different copies of that edition. Unfortunately this is one of the plates of which the original drawing is not at Brit. Mus. Bot. Dept. (*fide* Garry). Although Boswell Syme makes the plate (with less purple) do justice for *E. media*, he gives *purpurata* as a variety under that species in the text.—H.S.T.

Orchis Fuchsii Druce. Box Hill (basic soil), Surrey, v.c. 17, June 14, 1924. When fresh the leaves were fairly strongly spotted.—D. G. Catcheside. It is extremely doubtful whether there is any real ground for substituting this name for *O. maculata* L., which has hitherto been universally used for this plant. It may be questioned whether in Europe there are but two forms of the aggregate species, as Dr. Druce assumes, and the contention that Linnæus' account in *Species Plantarum* refers only to *O. ericetorum* Linton, to the exclusion of our spotted orchis of basic soils and other Continental forms, seems *primâ facie* opposed to all reasonable probability, and its untenability is pointed out by Col. Godfrey (Journ. Bot. lxi p. 306 and lxii p. 201).—H.W.P.

Allium vineale Linn., var. *compactum* (Thuill.). Near Richmond, Surrey, v.c. 17, June 7, 1924.—J. L. O'Loughlin.

Juncus compressus Jacq. Meadow by the Chew at Stanton Drew, N. Somerset, July 18, 1888.—Jas. W. White.

J. tenuis Willd. Footpath through peaty arable land, Lady Hall, S. Cumberland, Oct. 7, 1924. I waited till late in the year before gathering this, in the hope of securing more mature fruits. Unfortunately, the season was so wet that few were produced and, moreover, the plants dried so badly as to be only useful as a record. I believe the species has been once recorded for the north of the County, but not for the south. The plants were in great quantity, growing with *J. bufonius*, in particularly tenacious peaty soil above estuarine sand, near the R. Duddon.—W. H. Pearsall.

J. diffusus Hoppe. Miteham Common, Surrey, v.c. 17, Aug. 6 and 11, 1924.—F. J. Sheldon. The specimens are taken from

three patches, separated from each other by several hundred yards. *J. effusus* Linn., *J. conglomeratus* Linn. and *J. glaucus* Ehrh. all occur within the same area.—F.J.S.

J. conglomeratus L. Burleigh Meadows, Langley, Hitchin, Herts., v.c. 20, July 19, 1924.—J.E.L. Following up the distribution of *Juncus conglomeratus* in the district round Wilsey Down, N. Cornwall, I found that there also, as in Herts., Beds., Sussex and W. Norfolk, it is very much scarcer than *J. effusus*, although evidently widely distributed. The rush-bogs round Wilsey Down cover some thousands of acres, and there are myriads of *J. effusus*. Yet I only found small patches of *J. conglomeratus* in three localities, a few on Kittow's Moor, a few in a bog at the headwaters of the River Ottery, and near Crackington Haven.—J. E. Little.

Luzula pilosa Willd. Form with 1—3 flowers on the pedicels, as in *Forsteri*, but it is not believed to be a hybrid. Shaded bank above Montacute, S. Somerset. May 29, 1924.—H. S. Thompson. By every test that I can apply to this it seems to be *L. pilosa*, without any features of *L. Forsteri*.—J. E. Little.

L. ———. Woods, Lurgashall, W. Sussex, May 8, 1924.—R. J. Burdon. The divaricate panicle-branches and somewhat broad leaves appear to indicate *L. pilosa*. The panicle, however, is denser, and apart from its divarication has much more the aspect of *L. Forsteri*. One or two capsules appear, but owing to the early date of gathering it is not possible to say whether they will produce seeds.—J. E. Little. These appear to be intermediate between *L. Forsteri* and *L. pilosa* (*vernalis*), and show some of the characteristics of both. The large curved caruncle on the seeds and the reflexed peduncles are typical of *pilosa*, the small acute capsule shorter than the perianth is typical of *Forsteri*, while the width of the leaves (2·5—5mm.) is intermediate between the figures given by Coste for *Forsteri* and *pilosa*. The plants agree with the description of the hybrid *pilosa* × *Forsteri* (= *L. Borreri* Bromf.), which has been recorded from the same locality, except that the flowers are certainly not "always sterile" as Engler claims in Pflanzenreich.—F. J. Sheldon.

Sparganium neglectum Beeby. (**1**) Wallington Park, W. Norfolk, Oct. 12, 1924.—Det. Ar. Bennett. (**2**) Fordham, W. Norfolk, Oct. 9, 1924.—Det. Ar. Bennett. (**3**) Ippolyts Brook, Hitchin, Herts., Oct. 18, 1924. (If so, new to Herts. ?) Total, 22 packets of seed.—J. E. Little. Mr. A. Bennett agrees to the Hitchin plant being *neglectum*.

Alisma Plantago L., var *lanceolatum* With. Near Canal, Woking, Surrey, Aug. 1924.—W. Biddiscombe. The specimen sent has nearly all its leaves rounded at the base and seems to be an elongate form of the specific type. My specimens of var. *lanceolatum* show leaves gradually contracted below and decurrent on the petioles.—H. W. Pugsley.

Damasonium Alisma Mill. In a splash pool on Mitcham Common, Surrey, v.c. 17, July 1924.—D. G. Catcheside and J. L. O'Loughlin.

Potamogeton polygonifolius Pourr., var. *pseudo-fluitans* Syme. Stream near Thursley, Surrey, Nov. 1924.—I. A. Williams. No doubt this is a fluitant form of *polygonifolius*, but it is not the plant of Syme, the type specimen of which was from R. Leven, Loch Lomond, and is in the Edinburgh Herbarium. It is so much like some forms of *P. fluitans* Roth. that on the label is written "*P. fluitans*?" The heads of flowers are much more like *fluitans* than *polygonifolius*, but there is no doubt it is *polygonifolius*. See Boswell Syme in B.E.C. Report for 1872–4, p. 40, and also Report for 1876.—A. Bennett.

P. Drucei Fryer. In the River Avon at Bath, N. Somerset, Aug. 27, 1923.—H. S. Thompson. Mr. Bennett says in Journ. Bot., May, 1925: "The above name must give way to one long referred to other species, but about which no definite decision could be given. It is *P. petiolatus* Wolfgang (ex Besser) in Roem. & Schult. Syst. Veg. Mant. 3, 365 (1827)." Dr. Druce, when he first found this, suggested *P. natans* × *alpinus*. In 1910 Mr. Fryer, of Chatteris, wrote to me: "*P. Drucei* seems to be *polygonifolius* × *lucens*." To this I strongly objected. But in his *Potamogetons of the British Isles*, p. 31, t. 21 (1898), after discussing various names, he observes, "Probably Mr. Druce is correct in supposing it to be *alpinus* × *natans*." Dr. Hagström, in Crit. Res. Pot. (1916), p. 146, names it *P. alpinus* Balbs. × *P. natans* L. At the date of 1898 no fruit had been seen, but by cultivating it Mr. Fryer succeeded in fruiting it, and up to the present I have been unable to match it with any known species. In the Sec. Rep. B.E.C. for 1919, p 713 (1920) Dr. Druce gives a very interesting account of Mr. Fryer's correspondence about the plant. But it is a mistake to suppose it is the only *P. alpinus* × *natans* (if so), as Neuman, in his *Sveriges Flora* (1901), p. 708, gives it from "Vermland, Klaräflven, near Karlstad." And Küpffer, in Korresp. Nat. Ver. Riga (1906), p. 169, gives it from "Ogerflüsse bei Ogea (1895)," in the Baltic provinces of Russia. Asch. and Graebner, in *Das Pflanzenreich*, IV. 2 (1907), p. 65, give it as a

species, but remark, "Planta P. pulchro americano valde similis sed foliis submersa non crispata." The plant of Dr. Druce has absolutely no similarity to the American *P. pulcher* Inch., of which I possess a beautiful series. At present I am strongly inclined to call it a species and not a hybrid.—A. Bennett.

Heleocharis multicaulis (Sm.). Pond on Wilsey Down, N. Cornwall, v.c. 2, Sept. 12, 1924. The heads are rather frequently viviparous.—J. E. Little.

Rhynchospora fusca Ait. Brockenhurst, Hants., Aug. 31 (no year).—Rev. H. Roberts. Per Rev. F. A. Rogers, from the Hb. of W. Moyle Rogers. Comm. J. E. Little.

Carex paniculata L., var. *simplicior* Anders. (1) Swamp near Tickenham, N. Somerset, July 8, 1924. Leaves almost filiform. (2) Peat bog on Ashcott Moor, Somerset, June 19, 1924.—H. S. Thompson. I agree. Very satisfactory examples of this form.—C. E. Salmon.

C. vulpina L., var. *nemorosa* Rebent. (*C. nemorosa* Lumn.)? Ref. No. 4422. Lane-side near Whitchurch, N. Somerset, June 11, 1922. Growing with several other species.—H. S. Thompson. Perhaps so, but gathered rather too young.—C.E.S.

C. contigua Hoppe. Long wiry-stemmed form, many of the mature stems being 3 ft. long. Old mining ground near Shipham, N. Somerset, Aug. 7, 1924.—H. S. Thompson. I agree.—C.E.S.

C. contigua × *vulpina*? Ref. No. 4423. Lane-side near Whitchurch, N. Somerset, June 11, 1922. Both parents and *C. divulsa* were near.—H. S. Thompson. This is a very interesting gathering, and I believe Mr. Thompson is right in labelling it *contigua* × *vulpina*. The more slender less-winged culms are those of *contigua*, and the *perigynia*, in many cases, are strongly veined as in *vulpina*. In several fruits examined the nuts seemed quite sterile. I should value a root to grow very greatly.—C. E. Salmon. This seems likely to be correct, but seems to want the rampant growth of *vulpina*, but may be overpowered by the lesser growth of *contigua*. If so, I can find no record of such a hybrid. —A. Bennett.

C. Pairaei F. Schultz [600]. (Greensand) Rowney Warren, Beds., v.c. 30, June 14 and July 30, 1924.—J. E. Little. Yes; excellent material.—C.E.S.

C. Pairaei F. Schultz [A]. Wallington Park, W. Norfolk, v.c. 28. On an outcrop of greensand, Aug. 5 and 9, 1923.—J. E.

Little. I think correct, but rather poor specimen, top sheet.—A.B. This is very interesting—and puzzling. The habit, etc., is that of *C. Pairaei*, but some of the spikes and some of the fruits are a good way off that species. These particular *perigynia* are narrower and longer beaked than in *Pairaei*. Are other species growing thereabouts? Can hybridity be hinted at? I should much like a root to grow and test.—C.E.S.

C. muricata auct. plur., var. *pseudo-divulsa* Syme. Ref. No. 4425. This is what has often been called in England *C. Leersii* F. Schultz. Roadside near Axbridge, N. Somerset, June 15, 1922. *C. contigua* and *C. divulsa* on same bank.—H.S.T. Three sheets seemed *C. divulsa*, and I have so labelled them. The rest appear correctly named *C. Pairaei* F. Schultz, var. *Leersii* F. Schultz. I think Syme's name is a little too dubious to use for this plant.—C.E.S.

C. divulsa Stokes. Ref. No. 4424. With small spikelets. Lane-side near Whitchurch, N. Somerset, June 11, 1922.—H. S. Thompson. Agreed; but gathered rather too young.—C.E.S. and A.B.

C. divulsa Stokes. Langley, Hitchin, Herts., July 19, 1924. —J. E. Little. I agree.—C.E.S.

C. remota × *divulsa*. E. Sussex, near Waldron, June 11, 1924. —C. E. Salmon. This interesting hybrid occurred as a large tussock amidst a fine growth of *C. remota*, with *C. divulsa* in small quantity not far away. The hybrid had many points recalling the first-named, but differed from that in having only one elongated bract and more rigid culms, which were strongly scabrid near the summit. No good fruit seemed to be forming, and the conclusion was arrived at that the plant was barren. See Journ. Bot. 1925, p. 140. *C. axillaris* Good. (*remota* × *vulpina*) is somewhat like one plant, but possesses a more acute-angled stem, compound lower spikelets, etc.—C.E.S. One like Mr. Salmon, who gathers this *in situ*, is far better able to judge of a hybrid or not. Aseh. and Graebner do not give such a hybrid; nor does Richter in his Pl. Europeae. I can see no reason why it should not be accepted.—A. Bennett.

C. [*helvola* Blytt]. Lochnagar, Aberdeen, Aug. 25, 1924.—H. J. Burdon. I should not name these specimens *C. helvola* Blytt. I have compared them with specimens named by Blytt, and they do not correspond. But they are evidently the other hybrid that Dr. Druee found on Ben Lawers (see Ann. Scott. Nat. Hist., Oct. 1909, pp. 238—241). Herr Kiikenthall, in letters to Dr. Druce,

named some of his specimens "*C. biharica* Simonk. = *canescens* × *stellulata*; others as *C. tetrastachya* Tranzst. = × *super-canescens*, *C. helvola* (Blytt) Druce var." I should name Mr. Burdon's specimens:

× *C. Caflischii* Brügg. in Jahrb. Nat. Ges. Graub. xxiii—xxiv. p. 119 (1880).

= × *C. Biharica* Simonk. le., p. 548 (1886) = *C. canescens* × *stellulata* = *C. canescens* × *echinata*.—A. Bennett.

C. Hudsonii Ar. Benn. [590] (all from one tussock). Oughton Head, Hitchin, Herts., v.c. 20, May 27 and June 27, 1924. For notes see W.E.C.R. 1921, 187. Utricles elliptic, hardly acute, and only very shortly beaked, shortly stipitate. Nut "roundly obovoid, shortly beaked" (as Bab.). Leaves 18 in. or more. Lower sheaths leafless, pointed, and shining brown (? as those of *C. Goodenowii* never are).—J.E.L. I think I can add nothing to note in Rep. 1921-2, 188. It is certainly not the normal form of *C. Hudsonii*.—C.E.S.

? *C. Hudsonii* A. Bennett (*C. stricta* Good.). Ref. No. 226. Wet swamp near Tickenham, N. Somerset, May 25 and July 8, 1924. *C. Goodenowii* and ? *C. acuta*, and other species in the same swamp, thick with sedges.—H. S. Thompson. Not *C. Hudsonii* to my eye; the bulk appears to be *C. acutiformis*. If there are hybrids amongst them these are best determined on the spot, amid their parents.—C.E.S. All these 23 sheets are *C. acutiformis* Ehrh. It is curious, but I have seen this in many Scotch Herbaria named "*C. acuta*." One must admit there is at times "quite a look of it," and *acutiformis* sometimes has two styles; but the beak of the fruit and the striation of it are quite conclusive.—A. Bennett.

? *C. gracilis* Curt. Ref. No. 228. Wet swamp near Tickenham, N. Somerset, May 25, 1924. Is this the same as No. 226? The foliage may be mixed, and I do not understand the group.—H. S. Thompson. A mixture here. None *gracilis*. Four sheets *C. acutiformis*, two sheets *C. riparia*, and one with both species. I have separated them and labelled them.—C.E.S. I regret the trouble given over these last two lots.—H.S.T.

C. Goodenowii × *Hudsonii* ? Ref. No. 222. Wet swamp near Tickenham, N. Somerset, May 25, 1924. Both species growing quite near.—H. S. Thompson. Mr. Thompson may be right as to this—collectors have by far the best opportunities to discern hybrids—but the sheaths, fruit, shape, etc., are clearly *Hudsonii*. The spikes are shorter, however, and remind one of *Goodenowii*.

The nuts appear to be sterile in many cases.—C.E.S. I do not think this is so; the hybrid is a much stouter and heavier plant in all parts. The early date precludes one from testing the fruits if fertile or no. To me the only indication of *Hudsonii* are the male spikes, which are somewhat like those of that species. Why is it not a *Goodenowii* form ?—A.B.

C. Goodenowii Gay, var. *angustifolia* Blytt (1861). Ref. No. 3244. Sharpham peat-moor, Somerset, July 1, 1924 Growing with *C. lasiocarpa*.—H.S.T. I do not know Blytt's plant; it is not taken up by Ascherson and Graebner. Mr. Thompson's plant is not var. *juncea* Fr.—C.E.S. I should have named this var. *juncea* Fries = var. *juncella* Fries olim.—A.B.

C. humilis Leysser. Durdham Down, Bristol, v.c. 34, April and May, 1922.—H. S. Thompson. Very nice flowering specimens of this sedge, but many of us lack good fruiting examples. Bristol botanists please note !—C E.S. Having often failed to find any fruiting examples, I believe the few seeds which mature drop very quickly, and that the species is propagated chiefly by its very stout creeping and tufted rootstock.—H.S.T.

C. binervis Sm. var. Corrn Candu, S. Aberdeen, v.c 92, July 23, 1906.—W. A. Shoolbred. This is not var. *alpina* Drej. (*Sadleri* Linton), but it may be var. *nigrescens* Druce. It agrees with the description in "Hayward"—"glumes dark brown, spikes shorter."—C.E.S.

C. flava L. (aggr.). Wilsey Down, N. Cornwall, Sept. 12, 1924.—J. E. Little. *C. Oederi* Ritz., var. *oedocarpa* And.—C. E. Salmon.

C. —— ? Ref. No. 3436. Ashcott peat-moor, N. Somerset, June 19, 1924. Glumes scabrid, utricles ribbed.—H. S. Thompson. This is either an abnormal state of *C. acutiformis* or *C. acutiformis* crossed with some other species.—C.E.S. This is a state or form of *C. acutiformis* Ehrh., which it sometimes assumes, and one in which in Scotland it has been named *C. acuta* L. I have a specimen so named from Edinburgh, 1833, and others from Castle Douglas.—A. Bennett.

C. riparia Curt. forma. Ref. No. 3435. Wet peat bog, Ashcott Moor, Somerset, June 19, 1924. Leaves up to 14 mill. broad; glumes long, needle-shaped; 7–9 spikelets on each stem. —H. S. Thompson. *C. riparia* Curt.—C.E.S.

C. riparia Curt., var. *humilis* Uechtr. Ref. No. 2424. Damp sand, north of Burnham-on-Sea, N. Somerset, June 8 and 28,

1924. Short stature, narrower greener leaves, and smaller heads than the type. Perhaps only an ecological state.—H. S. Thompson. This is a small state of *riparia* apparently, but is not var. *humilis* Uechtr. according to a plant Kükenthall so named for me. That had shorter spikes and shorter glumes, and the perigynia of a different shape. Uechtricht says of his plant that the smaller examples almost resemble *C. distans*, and the larger ones remind one of *C. nutans* Host.—C.E.S.

C. riparia Curt. forma. Ref. No. 2425. Slender ecological form with narrow green leaves, but of at least normal height. In half-dry sandy swamp, Burnham-on-Sea, Somerset, June 8 and 28, 1924. A dense vegetation, and consequent want of brilliant light is the probable cause of this form.—H. S. Thompson. *C. riparia* Curt. Intermediate in vigour between 2424 and 3435.—C.E.S.

C. saxatilis L. Meall Garbh, Mid Perth, v.c. 88, July 16, 1913.—W. A. Shoolbred. Yes.—C.E.S.

Spartina stricta Roth. Canvey, Essex, 1924.—J. L. O'Loughlin. Correctly named.—W. O. Howarth.

Phleum phleoides Simonkai. Furze Hills, Hildersham, Cambs., June 5, 1924.—A. J. Crosfield. Yes. —W.O.H.

Agrostis nigra With. Fortingal, mid Perth, v.c. 88, July 15, 1913.—W. A. Shoolbred. *A. nigra* With. = *A. vulgaris* With. I see no reason for removing this from the type as described by Babington (ed. IX. p. 491) or Ascherson and Graebner II. i. 1900, p. 179—180). The ligules are short and truncate; the panicle branches have few soft hairs.—W.O.H.

Polypogon monspeliensis Desf. Cardiff Docks, Glamorgan, v.c. 41, Sept. 1924. Naturalised on mud flats.—A. E. Wade. Comm. Nat. Mus. of Wales. Yes.—W.O.H.

Avena fatua L., var. *glabrata* Peterm. Near Reculver, Kent, v.c. 15, Sept. 11, 1924.—W. R. Sherrin & C. E. Salmon. Comm. S.L.B.I. Det. C. V. B. Marquand.

A. fatua L., var. *pilosa* Druce. All data as above.

Phragmites communis Trin., var. *nigricans* G. et G. A large colony at high-water mark at extreme mouth of River Brue, N. Somerset, Sept. 19, 1924. 1½ to 3 ft. only in height, and of slender growth.—H.S.T. *Arundo Phragmites*, var. *subuniflora* Asch. & Graeb.—W. O. Howarth.

Cynosurus echinatus L. Waste ground, Streatham, Surrey, July 1924.—D. G. Catcheside. Yes.—W.O.H.

Koeleria gracilis Pers., var. *britannica* Domin. (1) Purn Hill, Bleadon, N. Somerset, July 22, 1924. Growing with *K. vallesiana*. Most of the spikes larger and more interrupted than in *vallesiana*, and spikelets also larger and less yellow at this place. (2) Sand Point, N. Somerset, July 8, 1924. Top of rachis hirsute in both cases.—H. S. Thompson. Yes.—W.O.H.

Poa pratensis L., var. *subcoerulea* Smith. Berrow sand dunes, N. Somerset, June 28, 1924. To show root development and stolons.—H. S. Thompson. Yes.—W.O.H.

P. trivialis L., var. *septentrionalis* ? Lerwick, Shetland, Aug. 3, 1924.—R. J. Burdon. Certainly under *P. trivialis* L. I do not know the var. *septentrionalis*.—W O.H.

Schlerochloa rupestris Rendl. & Britt. Seaford, Sussex, v.c. 14, July 6, 1924.—F. J. Sheldon. [Yes.] *Sch. procumbens* P. Beauv. —W.O.H.

Festuca rottboellioides Kunth (*S. loliacea* Woods). Very local, but plentiful on roadside and walls, Weston-super-Mare, N. Somerset, July 16, 1924.—H. S. Thompson. *Schlerochloa loliacea* Woods (1850) *Festuca rottboellioides* Kunth. (1829) *Desmazeria loliacea* Nym. (1855).—W.O.H.

F. fasciculata Forsk. (*uniglumis* Soland.) Berrow sand hills, N. Somerset, June 28, 1924. Large specimens, which at first I thought were hybrids with *Ammophila arenaria*, hence gathered in some quantity, and dried rather than destroyed.—H. S. Thompson. *F. uniglumis* Soland. Robust specimens, but within the type, I think.—W.O.H.

F. ovina L., viviparous form. On ledges of rock, etc., Glogwyn-du'-r-Arddu (c. 2500 ft.), Carnarvonshire, v.c. 49, Aug. 31, 1924.—D. G. Catcheside. *F. ovina* L. *vulgaris* (Hack.) Howarth. (Journ. Linn. Soc. [Bot.] No. 312). This viviparous form of our common *F. ovina* must not be confused with the *F. ovina*, *vivipam* L., which is a true var. of *F. supina* Hack., constant under cultivation.—W.O.H.

F. rubra L. *eu-rubra*, *genuina*, sub-var. *pruinosa* Hack., *fide* W. O. Howarth. Rocky coast, Weston-super-Mare, N. Somerset, July 16, 1924.—H. S. Thompson. *F. rubra*, var. *pruinosa* (Hack.) Howarth. (See Journ. Linn. Soc. Bot., Vol. XLVI, No. 309, p. 318).—W. O. Howarth.

Bromus madritensis Curtis. Limestone rocks, or on rubble beneath that rock and Dolomitic conglomerate, Clifton Down, W. Gloster, v.c. 44, June 22, 1904.—H. S. Thompson.

Lolium perenne L., var. *compressum* Sibth. Waste ground, Upper Cranbrook Road, Bristol, v.c. 34, July 19, 1924.—H. S. Thompson. This var. has long been recognised. It is described and figured by Scheuchzer in his *Agrostographia* (1719). Under var. *racemosum* Parnell describes and figures a similar form, but with pedunculated spikelets.—W.O.H.

Lepturus incurvatus (Trin.). Seaford, Sussex, v.c. 14, July 6, 1924.—F. J. Sheldon. The specimens were found on the seaward side of the road between Seaford and Newhaven, near the spot whence it was first recorded for Britain by W. R. Sherrin in 1908. Those sent to the Club that year were examined by Hackel, who confirmed the identification. According to this authority (*vide* W.B.E.C. Rep. 1908–1909) the critical distinction of *L. incurvatus* from *L. filiformis* rests, not so much on the curved culm, with its base hidden in the upper sheath, as on the shorter anthers, which in *L. incurvatus* measure 0·6 mm., and in *L. filiformis* 2·8 mm.—F.J.S. This plant appears to conform to the description of *L. incurvatus, b vulgatus*, subvar. *subcurvatus* Asch. & Graeb.—W. O. Howarth.

Athyrium alpestre Milde. Choire Chais, at 2500 ft. in East Inverness, July 24, 1911.—W. A. Shoolbred.

Asplenium viride Huds. Limestone pavement above Austwick, W. Yorks., Sept. 17, 1924. These plants were in great abundance, close to a few fine specimens of *Polystichum Lonchitis*. A mile away I passed a small colony of *Arenaria gothica*, and also saw *Veronica spicata* on the face of a scar.—W. H. Pearsall.

Lastraea spinulosa Presl. Box Hill, Surrey, Sept. 13, 1924.—H. W. Pugsley. These specimens are sent as vouchers for the occurrence of this bog-loving fern in a very unusual habitat—the clay overlying the chalk on the summit of the hill—where, although now growing in some quantity, it may shortly be extirpated. This is not the only unexpected species that grows on the clayey crest of Box Hill. Among the ferns *Lastraea dilatata* Presl. is relatively common, and there is at least one good patch of *Athyrium Filix-foemina* Roth. *Scrophularia aquatica* L. is widely distributed on the hill, and extends to some of the driest chalk screes, from which the clay is now entirely denuded. Box Hill is the only locality where I know this species away from water, and I have not seen it recorded from another similar

station. *Cardamine flexuosa* With., *Oxalis Acetosella* L., and *Euphrasia Rostkoviana* Hayne are other species that flourish on this stratum of clay, and *Epipactis violacea* Bor. also grows there, but much more sparingly than on some of the neighbouring heights.—H.W.P.

Lycopodium inundatum L. Near Thursley, Surrey, v.c. 17, Sept. 1924.—I. A. Williams. Comm. S. Lond. B.I.

L. annotinum L. Moorland, 1700 ft. south-east of Dalwhinnie, E. Inverness, v.c. 96, July 20, 1911.—W. A. Shoolbred.

Chara vulgaris L., ? var. *longibracteata* Kuetz. Near Bridge of Brown, Banff, v.c. 94, July 28, 1905.—W. A. Shoolbred. Yes, this has the long bract-cells, distant whorls, and inconspicuous spine-cells characteristic of this variety.—J. Groves.

Tolypella nidifica Leonh. Loch Huisheck, Dunrossness, Shetland, Aug. 11, 1924.—R. J. Burdon. Yes.—J. Groves.

Nitella flexilis Agardh., *teste* G. R. Bullock-Webster. Mill House Pond, Mitcham Common, Surrey, May 2 and July 3, 1924.—J. L. O'Loughlin. Although markedly protandrous, this plant is not the var. *Fryeri* Groves et Bullock-Webster, as the antheridia are nearly normal in size. Since typical *N. flexilis* grows on Mitcham Common (*teste* G. R. Bullock-Webster), and H. and J. Groves gathered *N. opaca* from the same locality, if not from the same pond, it would not seem unreasonable to suppose that the hybrid *N. flexilis* × *N. opaca* might appear. The plant in question, which grows in dense masses over an area of about 60 sq. yards in 2—4 ft. of water, appears very likely to be this, for we have:

N. flexilis characters: Monoecious. Antheridia and archegonia measurements.

N. opaca characters: Markedly protandrous (male organs were visible in March, and this is an approach to the dioecious character), dense fruiting whorls (a character very rare in *N. flexilis*, forming the var. *nidifica* Wallm), and the dark green colour. Further investigation *in situ*, however, will be necessary before any definite conclusions can be arrived at.—J. L. O'Loughlin.

N. opaca Agardh., var. (1) Water of Conglass, Banff, v.c. 94, July 15, 1905.—W. A. Shoolbred. A small capitate form which is not uncommon.—J. Groves. (2) Stagnant pool by Bridge of Brown, Banff, July 17, 1905.—W.A.S. A diffuse form of *N. opaca*, mostly male.—J. Groves.

N.B.—To-day, June 8, some careful notes on *Ranunculus*, *Euphrasia*, and *Salix* come to hand from Mr. Pearsall, several of which may be published in the next Report. He would refer Mr. Little's *E. nemorosa*, from Wilsey Down, Cornwall, to *E. Kerneri*; but agrees with the determination of practically all the other plants he comments on.—H.S.T.

NOTE.—*Back numbers of many of the Reports may be bought from the Treasurer at prices to be arranged with him.*

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31*st December*, 1924.

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Vol. III., No. 9.

THE

FORTY-SECOND ANNUAL REPORT

OF THE

WATSON

Botanical Exchange Club

1925—26.

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THE WATSON

Botanical Exchange Club

REPORT FOR 1925—26.

The number of plants sent in for distribution was 1735 from twenty-one contributors, and Mr. J. E. Little again sent packets of seeds. Although fewer plants were sent than in recent years, many were of great interest. It is gratifying to note that a few more Roses were received. A parcel of continental plants was received from the National Museum of Wales (Department of Botany).

List of Contributors.

	Sheets.		Sheets.
W. Biddiscombe ...	37	I. M. Roper ...	121
R. J. Burdon ...	58	C. E. Salmon ...	40
D. G. Catcheside ...	197	F. J. Sheldon ...	44
A. J. Crosfield ...	21	H. S. Thompson ...	105
J. Fraser ...	84	S. London Bot. Inst. ...	157
Jas. Groves ...	30	J. W. White ...	183
L. B. Hall ...	71	I. A. Williams ...	53
I. Helsby ...	18	A. H. Wolley-Dod ...	7
J. E. Little ...	292	Nat. Mus. of Wales ...	79
St. John Marriott ...	76		
H. W. Pugsley...	34	Total ...	...1735
F. Rilstone ...	28		

The referees were in most cases quite satisfied with the condition of the specimens, but in a few cases they expressed the opinion that the material was inadequate or carelessly prepared. As distributor I should like to thank members for their care in packing and labelling the specimens, and would only suggest that a little more room be left at the top of the labels for the Club stamp, which had sometimes to be put in sideways.

I must apologise for the delay in the distribution, due partly to personal business and partly to the general strike, which prevented posting of the parcels. I must also thankfully acknowledge the great assistance I have received from Mr. W. R. Sherrin, A.L.S., without which I could not have carried out the work at all.

The Club is indebted to the following botanists for their services as referees: Mr. A. Bennett, Mr. E. G. Baker, Mr. C. E. Britton, Dr. E. Drabble, Mr. J. Fraser, Prof. Henry, Mr. W. O. Howarth, Mr. A. B. Jackson, Mr. C. C. Lacaita, Mr. J. E. Little, Mr. W. H. Pearsall, Mr. H. W. Pugsley, Mr. H. J. Riddelsdell, Mr. C. E. Salmon, Mr. A. J. Wilmott, and Lt.-Col. A. H. Wolley-Dod.

F. J. Sheldon,
Distributor.

The Club is indebted to Mr. F. J. Sheldon, B.Sc., for having undertaken the distribution, with the help of Mr. Sherrin, to which he refers; and our best wishes go to Mr. and Mrs. Sheldon on their recent marriage.

We welcome to the Club a valuable Continental member in Dr. Karl Rechinger of Vienna.

Some useful determinations and notes by Mr. Pearsall upon *Ranunculus*, *Euphrasia* and *Salix*, which arrived too late for the last Report, are for the most part here appended. Also a necessary correction of my own to the Report, 1922—23.

H. S. Thompson,
June 17, 1926. *Hon. Sec.*

Correction in Report, 1922—23.

Both under the photograph and on p. 201 "*Cirsium eriophorum* Scop. subsp. *anglicum* Petrak" should read subsp. *britannicum* Petrak. I did not know this until I received from Dr. Petrak that section of his *Cirsiotheca Universa*; and only last December at Brit. Mus. (Nat. Hist.) did I see his "Der Formenkreiss des *Cirsium eriophorum* in Europa," in *Bibliotheca Botanica*, Stuttgart, 1912. The mistake arose through Dr. Petrak having called the plant subsp. *anglicum* in his two letters to me in 1922 and 1923. Until last February I had not known of Dr. Druce's useful review in B.E.C. Report, 1913, of Petrak's paper, which the former mentions in *Nature*, Feb. 27, 1926, when referring to my letter on "Flowering Plants as Epiphytes on Willows and Alders" (*Nature*, Nov. 14, 1925). It is true that Petrak called the plant subsp. *britannicum* in 1912 and not in 1922, but the monograph of the genus *Cirsium* is still unpublished.—H. S. Thompson.

Additions to last Report.

Ranunculus Drouetii F. Schultz. Rhine, Shapwick Moor, North Somerset.—Ida M. Roper. These are very representative specimens of the var. *Drouetii* (F. Schultz). The carpels are practically glabrous, but many of them have a few hairs near the apex. This is very commonly the case with this variety, but the carpels of typical *R. trichophyllus* are normally hairy and only very rarely sub-glabrous.—W. H. Pearsall.

R. heterophyllus Weber, var. *triphyllus* Hiern. In a ditch, Mitcham Common, Surrey.—D. G. Catcheside. This is obviously a form of *R. heterophyllus*, but as my sheet only shows one irregularly fissile floating leaf, it is quite impossible to say whether it is the var. *triphyllus* or not. Collectors would do well to remember that these plants afford the best characters when there are two or three heads of mature fruit upon the stem and, usually, flowers still present.—W.H.P.

R. hederaceus L., var. *omiophyllus* (Ten.). In a ditch on Mitcham Common, Surrey.—D. G. Catcheside. Fairly normal *R. hederaceus*—not the floating form *omiophyllus*—I should say. Unfortunately my sheet showed neither flowers nor mature fruits.—W.H.P.

Euphrasia nemorosa [606]. Wilsey Down, N. Cornwall.—J. E. Little. My sheet contains three plants. The long thread-like basal branches (on one specimen) are characteristic of plants growing among moist herbage, usually on a damp slope, and are very frequently met with in *E. nemorosa*. I should, however, refer these plants to *E. Kerneri*—growing in an uncongenial environment. All the flowers are brightly coloured—violet and blue predominating—none are white. The small and acutely dentate leaves, their thin texture, and the occasional exserted style of the corolla, are marked distinguishing features of this species.—W. H. Pearsall.

E. gracilis [603]. Kittow's Moor, N. Cornwall.—J. E. Little. Correctly named, I should say.—W.H.P.

E. Rostkoviana [599]. Kittow's Moor, N. Cornwall.—J. E. Little. Yes, *E. Rostkoviana*. Some of the plants are rather sparsely glandular on calyx and bracts, but the majority are copiously supplied throughout.—W.H.P.

Salix fragilis ♂ [592]. Confluence of Ippolyts Brook and Ash Brook, Hitchin, Herts.—J. E. Little. I agree. The leaves are much less large than those of the specimens received through the B.E.C.—W. H. Pearsall.

S. fragilis × *pentandra* ? [556]. Watercourse, nr. West Mill, Hitchin.—J. E. Little. In this further material I see nothing to induce me to alter the opinion I formed last year—*S. fragilis* × *pentandra*. I find no evidence of *S. alba*. The filaments are, as before, hairy at the base—by no means so far as the lower half. The bracts are, again, glabrous at the tip. Comparing a sheet of authentic *S. alba* × *pentandra* (from one of the Linton fascicles) I find the bracts of that have very long hairs, especially at the tip. All the leaves of this Linton example, too, are much larger –the largest $5\frac{1}{2}''$ by $1\frac{5}{8}$—than those of Mr. Little's specimen. Further, in *S. alba* × *pentandra* six stamens per flower are frequent, but of sixty flowers of this gathering examined by Mr. Little last year none had six stamens.—W.H.P.

S. aurita × *caprea* ♂ [579]. Westbury Wood, Offley, Herts.—J. E. Little. Yes, excellent examples of this hybrid.—W.H.P.

S. aurita × *caprea* ♀ [585]. Maidencroft, Hitchin.—J. E. Little. . . . . On the whole, I think the name is probably correct.—W.H.P.

S. aurita × *cinerea* ♀ [531]. Pond nr. Brickyard Wood, Stow Bardolph, W. Norfolk.—J. E. Little. Many of the leaves are unusually large for this hybrid—Some have a lamina measuring $3\frac{1}{2}$ inches—but their texture, rugosity and clothing are indicative of the suggested parentage. The ovaries give evidence of both species. I agree to the name.—W.H.P.

S. aurita × *cinerea* ♀ [582]. Oughton Head, Hitchin, Herts. —J. E. Little. Mr. Little sent me freshly-gathered specimens of this *Salix* last year, and I agreed with his determination. The small catkins, slender reddish twigs, small red buds and rugose young leaves, point to *S. aurita*, but the bracteoles are distinctly of the *S. cinerea* type, as are the ovaries—distinctly (though shortly) styled.—W.H.P.

S. aurita × *viminalis*. Newark Mill, Ripley.—J. Fraser. Excellent examples of this rare hybrid. The stipules are especially interesting.—W. H. Pearsall.

Thalictrum minus L. A few members may like good mature leaves from Cheddar Gorge, Somerset, Oct. 9, 1925. Seeds gathered that day are being cultivated by Mr. Wilmott, and also under Prof. Darbishire's supervision at the University of Bristol. —H. S. Thompson.

Ranunculus fluitans Lam., var. *cambricus* (Ar. Benn.). Llyn Coron, Bodorgan, Anglesea, April 30, 1925. This shows winter growth, but matches a July gathering sent by Mr. J. E. Griffith to the Club in 1917, which was accepted by Mr. Arthur Bennett. —Ida M. Roper.

Eranthis hyemalis Salisb. Enclosure on Sutton Road near Mitcham, Surrey, Feb. and April 1925.—E. C. Wallace and D. G. Catcheside. Growing with this was *Anemone apennina*, both plants being very abundant over a small enclosed area. Unfortunately the ground is a "desirable building site."—D. G. Catcheside.

Meconopsis cambrica Vig. Rocks and screes in Cheddar Gorge, N. Somerset, June 18, 1905.—J. W. White.

Corydalis claviculata DC. Sussex, just across the county border from Haslemere (Surrey), July 23, 1925. Locality shown me by Mr. E. W. Swanton.—I. A. Williams.

Fumaria officinalis L., var. *minor* Koch. Cultivated ground, Tockington, W. Gloster, v.c. 34, May 12, 1925.—Ida M. Roper. This small-flowered form of *F. officinalis* has too finely cut foliage and too large sepals for var. *minor*, and seems to be a form of var. *elegans* Pugsl., less rampant than usual, with rather short racemes and abnormally broad bracts.—H. W. Pugsley.

Barbarea praecox R. Br. (*B. verna* Aschers.). St. Vincent's Rocks, Clifton, W. Glouc., April 27 and June 1, 1908.—J. W. White. Correct.—A. B. Jackson.

Sisymbrium Irio L. Roadside, Sutton, Surrey, v.c. 17, July 3, 1925. Leg. E. C. Wallace. Comm. D. G. Catcheside. The stems and leaves are distinctly hairy, as often in this species, and always in its close allies *S. Columnae* Jacq. and *S. pannonicum* Jacq. Babington and Hayward describe *Irio* as glabrous, and Smith says, "generally, as Curtis observes, entirely smooth." Grenier and Godron put the pubescent form under *S. gallicum* Willd.—H. S. Thompson. This is *S. pannonicum* Jacq. *S. Irio* is a remarkably scarce plant.—C. E. Salmon.

Capsella Bursa-pastoris Medik., var. *gallica* Almq. Folkestone, E. Kent, June 1925. Teste G. C. Druce.—St. John Marriott. The specimens distributed agree well with the description and figure of *Capsella B-p.* (L.) *gallica*, an elementary species published by Dr. E. Almquist in *Acta Horti Bergiani*, Band IV, No. 6 (1907); and they also fairly match specimens of this form determined for me by Dr. Almquist. One plant of the gathering is not, however,

C. gallica, and I have ventured to retain it for further study. It is not, perhaps, allowable to cite this micro-species as "var. *gallica* E. At.", but in doing so the collector no doubt follows the practice of Dr. Druce.—C. E. Britton.

Brassica adpressa Boiss. (*B. incana* Schultz. *Sinapis* L.) Waste ground by the Docks, Avonmouth, W. Glouc., Oct. 27, 1925.—Mrs. Sandwith and J. W. White.

Lepidium graminifolium L. Casual on waste ground by Avonmouth Docks, W. Glouc., Oct. 27, 1925.—Mrs. Sandwith and J. W. White. Mr. Lacaita agrees.

Neslia paniculata Desv. Waste ground, Splott, Cardiff, Glamorgan, Sept. 1925. Grain-sifting alien. Coll. A. E. Wade. Comm. Nat. Mus. of Wales. Mr. Lacaita agrees with the determination.

Viola arvensis Murr. aggr. [645]. Boulder clay, Gt. Wymondley, Herts., May 7, 1925.—J. E. Little. Smaller cream and yellow flowers, from the same station as [644]. *V. variata* Jord. var. *sulphurea* Drabble. Some of these specimens are unusually small-flowered.—E. Drabble. No. 644 from same place is *V. variata* Jord. and var. *sulphurea* Drabble.—E.D.

V. ruralis Jord. Arable field, Old Down, Tockington, W. Glos., May 12, 1925.—Ida M. Roper. *V. variata* Jord. var. *sulphurea* Drabble. Very good specimens.—E. Drabble.

Viola ——— Herts., v.c. 22, Welwyn, June 1925.—W. R. Sherrin and J. E. Little. *V. agrestis* Jord.—E. Drabble.

Viola ——— Surrey, v.c. 17, near Weston, July 1925.—W. R. Sherrin.—*V. agrestis* Jord.—E. Drabble.

Viola ——— E. Kent, v.c. 15, near Folkestone, June 1925.—W. R. Sherrin. *V. Deseglisei* Jord.—E. Drabble.

Viola ——— Hereford, v.c. 36, Ross, Aug. 1925.—W. R. Sherrin and St. J. Marriott. *V. arvatica* Jord. Small specimens. When growing with corn *arvatica* may reach a height of a foot or more; but it is always of slender habit, with leaves shorter than the internodes, and with strongly divaricate peduncles.—E. Drabble.

Cerastium tetrandrum Curt. Formby, S. Lancs., v.c. 59, June 6, 1922. Coll. J. A. Wheldon. Comm. National Museum of Wales. A sad mixture here! Three sheets are *tetrandrum*; four sheets are *C. semidecandrum*, var. *glandulosum* Koch; one sheet contains both. I have separated all the specimens.—C. E. Salmon.

C. pumilum Curtis. Limestone slopes, Durdham Downs, Bristol, v.c. 34, May 1 and 7, 1922. Blossoms closed by 7 p.m. (summer time) both evenings, though the sun still shone.—H. S. Thompson. Beautiful examples of this early flowering species.—C. E. Salmon.

C. glomeratum Thuill. Hitchin, Herts.—J. E. Little. Seems better placed under Rouy and Foucaud's sub-var. *elongatum* rather than their *confertum*.—C. E. Salmon.

Sagina nodosa Fenzl. ? var. *glandulosa* Besser. Wretton Fen. —J. E. Little. Not glandular enough for Besser's *glandulosa*. The leaves should be glandular-ciliate and the upper part of stem and the calyx glandular-hairy.—C. E. Salmon.

Polycarpon tetraphyllum L. St. Brelade's Bay, Jersey, May 28, 1896.—Jas. W. White. The plants of this fine set agree in many cases with Rouy and Foucaud's description of their variety *densum* (Fl. Fr. iii, 312), but none of them can well be referred to var. *diphyllum* DC. (Vide Journ. Bot. lii, 329, 1914), although they show the relatively large flowers characteristic of that variety. There is no allusion to the size of the flowers in the description of var. *densum*, which cannot readily be determined with accuracy as no figures or exsiccata are cited.—H. W. Pugsley.

Malva rotundifolia L. Avonmouth Flats, W. Gloster, v.c. 34, Oct. 28, 1925.—Ida M. Roper.

Geranium sanguineum L. St. Vincent's Rocks, Clifton, W. Glouc., July 2, 1924.—J. W. White.

G. purpureum Vill., var. *Forsteri* Wilmott. Shingle at Middleton, Bognor, Sussex, June 27, 1925. [No. 415.] Coll. H. W. Pugsley. This is a prostrate form of *G. purpureum* analogous with the variety *maritimum* Bab. of *G. Robertianum* L., from which it may be distinguished by its much smaller flowers, with yellow anthers, and by its more strongly wrinkled fruits. Vide Journ. Bot. lix, 93 (1921).—H. W. Pugsley.

Erodium [*cicutarium* L'Hérit ? var. *glandulosum* Bosch.]. Littlestone, E. Kent, v.c. 15.—St. J. Marriott. This is *E. neglectum* E. G. Baker and C. E. Salmon.—C.E.S.

Anthyllis coccinea L. Near Newquay, Cornwall, v.c. 1, end of June 1925. Flowers orange and rose to dark crimson; all with purple tipped calyces.—H. S. Thompson.

Astragalus glycyphyllos L. Thicket, Compton Dando, N. Somerset, v.c. 6, Aug. 11, 1925.—Ida M. Roper.

Vicia sepium L. forma *alba*, probably var. *ochroleuca* Bast. Roadside bank near Abbotsbury, N. Somerset, v.c. 6, May 13, 1925. Growing with the normal plant.—H. S. Thompson. The white-flowered plant is sub-var. *alba* Rouy, the var. *ochroleuca* DC. has yellowish-white flowers.—C. E. Salmon.

Lathyrus Nissolia L. Field adjoining Redstone Wood, Redhill, Surrey. 1860. Coll. J. Linnell. John Linnell (1822—1906) was the son of the distinguished artist of the same name and lived at Redstone Hill, Redhill. He was an enthusiastic collector of insects (chiefly Coleoptera) and plants, and helped Brewer, who edited the (1863) *Flora of Surrey*. As I knew him many years ago (and incidentally he was my first instructor in drawing!) I was very pleased to have his herbarium presented to me recently, containing examples of the majority of the plants recorded under his name in the *Flora*. I thought some members might like specimens of this *Lathyrus* which—from the duplicates in his collection—evidently grew in extraordinary abundance on his estate.—C. E. Salmon.

Prunus serotina Ehrh. Naturalised, Peper Harow, Surrey, v.c. 17, July 2, 1925.—J. E. Little. Yes; the Plum Cherry of N. America, where it is widely spread and attains a height of 100 ft. No doubt of planted origin in Surrey.—A. B. Jackson. See note by J. E. Little in Journ. Bot., 1925, p. 371.

Rubus leucostachys Sm. Wood border, Leigh Woods, N. Somerset, July 19, 1925. A small, weak form growing in partial shade. Mr. Riddelsdell finds it rather extra glandular in panicle. —Jas. W. White. I should certainly say so of the great majority of this gathering, but there is one panicle apparently from some other bush.—H. J. Riddelsdell.

R. mutabilis Genev., var. *Naldretti* J. W. White. Roadside near Storrington, West Sussex, Aug. 2, 1907. Poor specimens, but all that I can furnish at present.—Jas. W. White. Correct.—H.J.R.

R. Powellii Rogers. [Ref. No. 388.] Field border, Lambourne Hill, W. Cornwall, v.c. 1, Aug. 8, 1925.—F. Rilstone. This is *R. Powellii* Rog. *form*, not type, going off like the Shotover plant towards *R. radula* Whe.—H.J.R. Later: I believe this is correct.—H.J.R.

Alchemilla vulgaris L., var. *alpestris* Pohl. [626]. Jervaulx, N. Yorks, June 1, 1925.—J. E. Little. Yes, *A. alpestris* Schmidt. —C. E. Salmon.

Rosa systyla Bast. [655]. Nr. Parkhurst House, W. Sussex, v.c. 13, July 3, 1925.—J. E. Little. Yes, var. *systyla*, one of our most easily recognisable roses, but these are not very characteristic specimens.—A. H. W-Dod.

R. canina L., var. *montivaga* Comb. nov. [B. 3]. West Town, Hayling Island, Hants, Aug. 1925. This appears to be the above by the exserted hairy styles, but the prickles are more like var. *syntrichostyla* Rouy.—W. Biddiscombe. I think this may pass for var. *montivaga*, but most of the specimens differ from that in their longish peduncles and early deciduous sepals. The alternative is var. *globularis*, from which its woolly styles distinguish it. Both leaflets and fruit are smaller than is usual in var. *montivaga*, and the leaflets are somewhat more biserrate than normal.—A. H. W-Dod.

R. canina L., var. *andegavensis* (Bast.) [B. 2]. West Town, Hayling Island, Hants, Aug. 1925.—W. Biddiscombe. Correctly named, but some of the specimens have their styles almost glabrous enough for f. *agraria*.—A. H. W-Dod.

R. canina var. *Pouzini*, f. *anglica* W-Dod. Fawke Common, W. Kent, v.c. 16, July 18, 1925. I send a few sheets of this form from its original station, but not from the original bush, which exists no longer. It is practically identical with my type specimens, though in a more advanced stage, showing that the fruit is quite ovoid, not subglobose as described. The leaflets also are decidedly hairy on the midribs beneath, not rarely so, as I wrote in my description. The type of *R. Pouzini* is glabrous, but there are Continental varieties with pubescent leaflets showing a connection with *R. dumetorum* through my Group Aciculatae.—A. H. W-Dod. This plant has been since seen by Dr. Keller, who agrees with the above determination.

R. tomentosa Sm., f. *eglandulosa* W-Dod [B. 1]. Horsell Common, Woking, Surrey, Aug. 1925.—W. Biddiscombe. Correctly named.—A. H. W-Dod.

R. micrantha Sm. [var. *operta* Pug.]. White Down, Surrey, Aug. 1925.—W. Biddiscombe. This is *R. micrantha* var. *typica*. The leaflets of one or two small pieces are about as large as those of var. *operta*, but the bulk are much too small, and the fruit is that of the type.—A. H. W-Dod.

Callitriche stagnalis Scop. Bull's Green, Herts., June 9, 1925.—J. E. Little and W. R. Sherrin. The numerous forms in which *stagnalis* and *platycarpa* are recorded by the late Dr.

Williams in Prod. Fl. Brit., p. 9, 505, 1912, taken from Kützing, are really only states! I have traced them on Mitcham Common, Surrey, from state to state; and I agree with Hegelmaier, Mon. Gatt. Callitriche (1864), in combining *stagnalis* and *platycarpa*. The greater difference is in Loennrot's *C. stagnalis* var. *serpyllifolia*, which certainly has a facies quite unlike the other forms. Williams only referred to Loennrot's 1854 paper, but he published a far fuller one in the *Botaniska Notiser* of 1867.—A. Bennett.

Callitriche stagnalis Scop., var. *serpyllifolia* Loennr. Muddy path, Bishop's Hill Wood, Wickwar, W. Gloster, v.c. 34, June 30, 1925. This creeping variety, from ground where water has long stood, shows smaller and rounder leaves than the plants of ditches.—Ida M. Roper. A good representation of Loennrot's variety.—A. Bennett.

Epilobium hirsutum × *parviflorum* (= × *intermedium* Reichb.). Peaty meadow, Clapton Wick, N. Somerset, v.c. 6, July 14, 1925. A small clump growing with the parents. It resembled *parviflorum* in size and hairiness, with fibrous roots, but the flowers were coloured like *hirsutum* and intermediate in size. The serration of the leaves is an important character in Epilobia hybrids, and these have neither the hooked teeth of *hirsutum* nor the small callose form of *parviflorum*.—Ida M. Roper.

E. roseum Schreb. Ranmore Common, Surrey, v.c. 17, Aug. 15, 1925. Ref. No. 2819.—C. E. Britton.

Æthusa Cynapium L., var. *agrestis* Wall. Near Reculvers, E. Kent, v.c. 15, Sept. 11, 1924.—W. R. Sherrin and C. E. Salmon. These specimens show well the various points emphasized by Wallroth for his *agrestis*.—C. E. Salmon.

Selinum Carvifolia L. Chippenham Fen, Cambs., Aug. 1888. —W. J. Cross. Comm. Nat. Mus. of Wales.

Galium verum L., var. *maritimum* DC. Minehead, W. Somerset, v.c. 5, sand-hills about Warren Point, Aug. 29, 1925. Growing very abundantly associated with *Carex arenaria*, *Psamma*, etc. Perhaps only an ecological state, even though it has such a distinct appearance.—D. G. Catcheside. Yes, the late E. S. Marshall considered much of the fleshy form of Somerset sand-hills little more than an ecological state, though he admitted it "often corresponds to the var. *maritimum* DC."—H. S. Thompson. Rouy adopts for the dwarf, sand-hill form of this species the varietal name *littoralis* Brébisson. It has been pointed out that de Candolle's description does not match our British plant.—H. W. Pugsley.

G. Mollugo subsp. *erectum* (Huds.) Briq. I adopt the nomenclature of Dr. Briquet, the chief authority on *Galium*; but this series of mostly very small, delicate forms retained from a more normal gathering of June 19, 1922, is bewildering. See Report for 1922, p. 217, and Journ. Bot. 1919, p. 286. The whole came from a pasture at Sidcot, N. Somerset.—H. S. Thompson. In November 1922 I noted that the leaves of this gathering vary in number from 6—8, and in shape from linear to linear-oblong or linear-lanceolate. Some have a muero, and the majority are turned in at the margin, and have fine forward teeth. The young capsules are almost glabrous. Some specimens may come under *G. Mollugo* subsp. *tenuifolium* (All.) Schinz et Thellung. I also have a sheet of specimens gathered June 3, 1920 (when cows were grazing), which are only 4 to 8 inches high, leaves with distinct mucro and with decided mid-rib, and flowers 4—5 mm. across. The aspect is that of *G. sylvestre*, but they may be crossed with *erectum*, or merely a depauperate form of the latter. In 1920 no larger specimens were seen in the field. *G. sylvestre* has never been recorded from within several miles of that field, and these further notes may be interesting to indicate the extreme variability of certain Galiums when growing under different conditions of cultivation in the same upland pasture, browsed by sheep for "at least forty years," mown for the first time in 1919, then grazed by a horse, and in 1920 by cows. If the various forms of *G. Mollugo*, *G. erectum*, and *G. sylvestre* could be cultivated and carefully watched the results might be both useful and illuminating.—H. S. Thompson.

G. Mollugo L., var. *Bakeri* (Syme)? Priory Park, Hitchin, Herts., v.c. 20, June 17, 1925. From the same station as that named by E. G. Baker (1924 distribution, but not in Report).—J. E. Little. The "Yorkshire *Galium* allied to *G. erectum*" (Journ. Bot. 1863, 290) which Syme named *G. elatum* Thuill., var. *Bakeri* seems little understood; and Mr. Salmon said (W.B.E.C. Report, 1920, p 104), "It would appear, from Mr. Baker's careful description, that his plant would be better placed as a variety of *G. erectum*, with which it agrees as regards pedicel-length and angle, in leaves, flowers and fruit, and also in its time of flowering."—H. S. Thompson.

G. palustre, var. *Witheringii* (Sm.). Roadside, Miteham Common, Surrey, v.c. 17, July 13 and Sept. 1925.—D. G. Catcheside. Is not this the type? Smith's *Witheringii* should have elliptic-lanceolate leaves, about five in a whorl, and upright rough stems. These examples seem too straggling, leaves in fours, panicle too

lax, etc. ; it does not accord with Smith's figure in E. B. 2206.—C. E. Salmon.

Valeriana officinalis L. (*Mikanii* Syme). Limestone slope under Leigh Woods, N. Somerset, June 28, 1924.—J. W. White.

Filago apiculata G. E. Smith. Honnington, E. Suffolk, July 1889.—W. H. Hind. Comm. Nat. Mus. of Wales. To me this is just *F. germanica*. It lacks the characteristic colouring, broader foliage, larger capitula, etc., of *F. apiculata*—to say nothing of the crimson-tipped phyllaries.—C. E. Salmon.

Gnaphalium uliginosum L., var. *lasiocarpum* Ledeb. Marsh at foot of Headen Hill, I. of Wight, Sept. 1925.—J. Groves.

Petasites ovatus Hill. Banks of R. Yore, Jervaulx, Wensleydale, N. Riding, June 3, 1925.—J. E. Little. This is the rare sub-fertile form which will be welcome to most members. In the heads I have examined about 50 per cent. of the florets had produced fertile achenes—the rest seemed sterile.—C. E. Salmon.

Centaurea ——— Blackdown, W. Sussex.—R. J. Burdon, *C. nemoralis* Jord.—C. E. Britton.

C. nemoralis Jord., var. *minima* C. E. Britton. Chalk rubble at base of cliff, Kingsdown, E. Kent, v.c. 15, Aug. 1925.—D. G. Catchesidc. Mr. Britton is not satisfied with most of the specimens.

Hieracium decolor Ley. Cult. Wimbledon garden, Sept. 16, 1925. Orig. Great Orme's Head, 1922.—H. W. Pugsley. [No. 414.] Styles yellow, leaves caesious. This plant stands in W. R. Linton's *British Hieracia* as a variety of *H. cæsium* Fr., but was removed by Augustin Ley to the *Oreadea* as a distinct species in 1909 (Journ. Bot. xlvii, 10). The specimens now contributed, which may not be readily recognised as *H. decolor*, were brought from the Great Orme in 1922 and have materially changed under cultivation. They have grown into luxuriant tufts, and their foliage has become very long and narrow, with an increased development of the cauline leaves and of the long lower branches of the radicle. Wild plants of this Hawkweed, both in Wales and Yorkshire, occasionally develop a similar habit, though in a less degree, and as this peculiarity is sometimes seen in other forms of *H. cæsium*, it may be regarded in *H. decolor* as evidence of affinity with that species. I do not find that cultivation produces a corresponding change in the Oreadean species, *H. Leyi*, *H. rubicundum*, *H. britannicum*, or *H. cambricum*, of which my garden examples differ little from the wild plants,

except for their smaller heads, as appears general in cultivation throughout the genus.—H. W. Pugsley.

H. pellucidum Laest. Lane-side, Coldharbour, Surrey, v.c. 17, June 13, 1925. Styles blackish.—D. G. Catcheside. This is the plant so named in Linton's Handbook, but it was pointed out by Ley (Journ. Bot. xlvii, 13, 1909) that it should really be regarded as a form of *H. serratifrons* Almq. It is closely related to var. *lepistoides* (Johansson) and is the prevalent Hawkweed of this group in Surrey.—H. W. Pugsley.

H. ——— Near Farnham, Surrey. 1925.—R. J. Burdon. Under the arrangement of Linton's Handbook this is apparently a form of *H. rigidum* var. *scabrescens* Dahlst. with the stem and foliage less scabrid than usual. But I think the plant is more closely related to *H. tridentatum* Fr. than to *H. rigidum* Hartm.—H. W. Pugsley.

Leontodon autumnale L. *forma.* Ruan Pool, the Lizard, Cornwall, Sept. 2, 1925. Growing on very wet, grassy bog. Is this a named form or variety?—I. A. Williams.

Lactuca Serriola L. Cheam, Surrey, v.c. 17, July 27, 1925. Leg. E. C. Wallace. Comm. D. G. Catcheside.

L. saligna L. Marshes near Dartford, Kent, Aug. 5, 1925.—I. Helsby. (**2**) Stone, W. Kent, Aug. 1925.—St. J. Marriott.

Erica ciliaris L. × *Tetralix* (*Watsoni* Benth.). Near Wareham, Dorset, Aug. 31, 1925.—L. B. Hall.

E. ciliaris × *Tetralix.* Chasewater, Cornwall, v.c. 1, Sept. 1894.—J. H. A. Steuart. Comm. Nat. Mus. of Wales.

Limonium binervosum C. E. Salmon. Cliffs between St. Margaret's Bay and Kingsdown, E. Kent, v.c. 15, Aug. 9, 1925.—D. G. Catcheside. Yes, the chalk cliff form mentioned in Journ. Bot. 1903, 70.—C. E. Salmon.

Primula elatior Jacq. Stony Stratford, Essex, March 1889.—J. H. A. Steuart. Comm. Nat. Mus. of Wales.

Gentiana lingulata var. *praecox* Towns. Banstead Downs, Surrey, v.c. 17, June 19, 1925.—E. C. Wallace. Comm. D. G. Catcheside. This flowers during the first three weeks of June, while *G. amarella*, which also occurs on the downs, does not begin to flower till well into August.—D. G. Catcheside.

Symphytum peregrinum Ledeb. From a patch which is apparently well-established on a roadside near Lythe Hill, Haslemere, Surrey, June 24, 1925.—I. A. Williams.

S. tuberosum L. Copse near Liphook, Hampshire, May 23, 1925.—I. A. Williams. I first found this growing in the copse, and the lane adjoining, in May 1924. In 1925 I could find it only in the copse. It was recorded in the last Report of B.E.C. as a N.C.R., and I send the solitary specimen as a voucher. It is very doubtful whether this plant is native at Liphook; there are houses close by, and I am told that a previous owner of the property was a lady "of botanical tastes," who may have introduced it into the copse.—I. A. Williams.

Myosotis repens G. & D. Don. [Ref. No. 642.] Black Down, W. Sussex, July 3, 1925.—J. E. Little. Same locality, July 21. —R. J. Burdon. I agree.—C. E. Salmon.

M. silvatica Hoffm. Jervaulx, N. Riding, Yorks., v.c. 65, June 3, 1925.—J. E. Little. Yes; beautifully prepared material. —C. E. Salmon.

M. arvensis Hill. [Ref. No. 630.] Wymondley Road, Hitchin, Herts., v.c. 20, June 14, 1925.—J. E. Little. Yes.—C. E. Salmon.

Amsinckia lycopsoides Lehm. Near Gravesend, W. Kent, v.c. 16, July 1924.—St. J. Marriott. This alien plant, of fowl runs, etc., has appeared in various fresh districts of recent years. It first appeared in Europe (from Chili) about 1845.—H. S. Thompson.

Cuscuta Epithymum Murr.? Roydon Common, W. Norfolk, Aug. 13, 1925.—J. E Little. The corolla-scales hardly equal more than half the corolla-tube, and the scales when separated have a rounded sinus between. This hardly agrees with Babington's description of *C. Epithymum.*—J. E. Little.

C. Trifolii Bab. Wallington, W. Norfolk, Aug. 2, 1925.— J. E. Little.

C. Epilinum Weihe. Flaxfield, south of Newport, I. of Wight. July 1925.—Jas. Groves.

Scrophularia Ehrharti C. A. Stevens. [651.] Wretton Fen, W. Norfolk, Aug. 10 and Oct. 13, 1925.—J. E. Little. Plant light green, root fibrous, stems ± broadly winged in the centre, but the wings are less evident in the panicle. Leaves variable, acute or obtuse; lamina decurrent to the winged petiole. Staminode bilobed, lobes divaricate. Filaments glandular. Only once recorded for Norfolk (Druce in Nicholson's Flora, as *S. alata* Gilib.). I am not sure what is the best name for this plant, but Syme's description of *S. Ehrharti* and that in Grenier and Godron

are far more definite than any others that I have seen.—J. E. Little. C. A. Stevens (Steven in Freneh Floras) is not found in Biograph. Index of Engl. and Irish Botanists or Suppls. 1—3.—H.S.T.

Euphrasia brevipila Burnat et Gremli, f. *subeglandulosa*. [566.] (Det. W. H. Pearsall: doubtful, H. W. Pugsley.) Ippolyts Common, Herts., Sept. 1925.—J. E. Little.

E. brevipila Burnat et Gremli. Cliff-top, Watermouth Bay, near Ilfraeombe, N. Devon, Aug. 11, 1924.—D. G. Catcheside. I think rightly named, though the characteristic shortly-stalked foliar glands are not very obvious.—H. W. Pugsley. *E. brevipila*, with abundance of shortly-stalked glands on two plants and few on a third.—W. H. Pearsall.

E. brevipila [× *nemorosa*]. Cliff-top, Watermouth Bay, near Ilfracombe, N. Devon, Aug. 11, 1924. Both parents were present on the same patch of grass.—D. G. Catcheside. These specimens do not seem to me essentially different from those sent from the same loeality as *E. brevipila*.—H. W. Pugsley. Updrawn *E. brevipila*.—W. H. Pearsall.

E. nemorosa Pers. (**1**) Kingsdown, E. Kent, v.c. 15, Aug. 1925.—D. G. Catcheside. Probably a form of this, but too badly dried for eertain determination.—H. W. Pugsley.—I agree with H.W.P.—W. H. Pearsall. (**2**) Bank, Doone Valley, N. Devon, Aug. 13, 1924. Growing in great abundanee in one spot, where I also saw it in September 1925. It is conspicuous by the deep purple of the flowers.—D. G. Cateheside. Yes.—H. W. Pugsley. Yes.—W. H. Pearsall.

E. nemorosa Pers., var. *ciliata* Drabble. Chalky field near Woldingham, Surrey, v.e. 17, Sept. 12, 1925.—D. G. Catcheside. These specimens, which are fragmentary and gathered late, appear to be a slender form of *E. Kerneri*, although the corollas are not very large.—H. W. Pugsley. *E. nemorosa*, var. *ciliata*.—Drabble.

E. occidentalis Wettst. Hillsborough, N. Devon, v c. 4, Aug. 10, 1924.—D. G. Catcheside. This plant, whieh I have seen on cliffs at Lynton, Swanage, and elsewhere on the south coast of England, seems to be a maritime form of *E. borealis* Towns. *E. occidentalis* is usually a smaller plant, much more branched, and with narrower, more or less glandular foliage.—H. W. Pugsley. Not this, but *E. borealis*.—W. H. Pearsall.

E. scotica Wettst. Moel-yr-bgof, Carnarvonshire, v.c. 49, Sept. 3, 1924, Growing with Sphagnum, etc., at alt. c. 2000 ft. —D. G. Catcheside. This has the *facies* of a small form of *E. scotica*, but it differs by its shaggy, white pubescence, and should be referred, I think, to *E. curta* f. *piccola* Townsend. *Vide* Journ. Bot. xl. 362 (1902).—H. W. Pugsley. I agree with Mr. Pugsley that this is *E. curta* f. *piccola* Towns.—W. H. Pearsall.

E. Rostkoviana Hayne. Shalford Common, Surrey, Aug. 22, 1925.—I. A. Williams. The smaller-leaved plants were growing in ranker grass than the others. I have taken what I believe to be this species also at Little Frensham, in the Punch Bowl, and at Worplesdon, so it appears to be common in Surrey.—I. A. W. The usual Surrey form of *E. Rostkoviana*.—H. W. Pugsley

E. Kerneri Wettst. Grassy waste ground by pathway, Carnkief, Perranzabuloe, Cornwall, v.c. 1. Aug. 5, 1925.—F. Rilstone. *E. nemorosa*, the foliage of the smaller specimens resembling that of *E. confusa*.—H. W. Pugsley. Rightly named, I should say. The very thin texture and long narrow acute teeth of the foliage are against *E. nemorosa*. The protruding styles of some flowers support this view.—W. H. Pearsall.

Mentha piperita L. a *officinalis* (Hull.). In water by the Upper Frome, Gurney Slade, N. Somerset, Sept. 11, 1925. Growing with *M. longifolia* and *M. aquatica*. A few examples from a new locality. *M. piperita* is of exceptional interest on account of its obscure origin and remarkable stability. A hybrid with one parent alien to Britain, it must certainly have been introduced from abroad at some remote period. In no country has it been shown to be indigenous, but its cultivation as an officinal cordial and carminative of high repute has long extended throughout Europe. An old writer (Woodville) says that only in Britain does it occur spontaneously—a remark that may still hold good. In the dozen or so localities (for *officinalis*) known to me, although often within sight of dwellings, this Mint is never found in company with adventive species, but has always the aspect of a true native, associated usually with *longifolia*, *aquatica*, or *sativa*. Another noteworthy feature of British Peppermint as a denizen is the absence of variation. We have merely the two distinct forms *officinalis* and *vulgaris*. Very rarely has there been reported anything in the way of an intermediate between these. I know of none existing, nor do any appear in our Catalogues. The var. *Druceana* Briq., recently described, evidently leans

towards *aquatica*, under which Dr. Druce placed it in his *Flora of Berkshire*. In cultivation, however, those who are commercially interested in the production of essential oils for use in medicine or perfumery have carefully selected the plants whose flowering tops and branches proved richest in their yield, and these of course are propagated and multiplied solely by their stolons. Such experimental selection is stated to be of far more importance in culture than soil or climate. Some of the results obtained are peculiar and surprising. In their elaborate *Etude Botanique des Menthes Cultivées* (Grasse, 1911) the brothers Camus state that selected strains of hybrid Mints will often show the habit of one parent with the inflorescence and floral organs of the other; and sometimes the inflorescence on the main stem does not match those on the secondary axes. In illustration they give a beautiful drawing of a choice form in cultivation at Grasse, "*Mentha piperita* var. *sativa*, f. *rubescens*," that has on the primary axis the indubitable spike of *M. viridis*, while the overtopping lateral branches bear the round heads of *M. aquatica*! Has such an occurrence ever been observed among wild plants?—Jas. W. White.

M. aquatica × *arvensis* (*sativa* Linn.; *rivalis* Wats.). Marshy spring-head at Walton-in-Gordano, N. Somerset, Aug. 17, 1925. At the spot where this plant was gathered several other Mints have been known during the last forty years; always in small quantity and at uncertain intervals according to the state of the ground. There has been no record of *M. sativa* until lately. Now it has spread over an area as far exceeding that occupied by the other Mints as it outdoes them in luxuriance. We have here, apparently, a hybrid more robust and vigorous than either of its parents, becoming predominant and likely to supplant them in the locality where it originated. It can do so by means of a lusty vegetative system of stolons and suckers that secures a practically indefinite propagation independent of sexual organs that may be undeveloped and infertile.—Jas. W. White. Plants labelled *rivalis* I like to see possessing bracts all leaf-like (scarcely diminishing in size upwards) and with all the flower whorls separated. Some of Mr. White's specimens have the bracts diminishing in size considerably at the apex, and the whorls collected (practically) into a spike, thus coming, one would suggest, under *paludosa*.—C. E. Salmon.

M. aquatica × *arvensis* (*sativa* Linn.), var. *acutifolia* (Sm.). Cult. from the R. Medway, Nettlestead, Kent, v.c. 16. J. E. Smith had only a specimen from Miller's herbarium, and another

in Buddle's collection on which to found his species, *M. acutifolia*, which he stated was allied to *M. sativa*. It is not surprising, therefore, to find variations in the progeny of a hybrid Mint. I have six or more specimens from the Medway valley, all varying in small particulars around Smith's type. The name might equally or more correctly be written × *Mentha verticillata* Linn., var. *acutifolia* (Sm.), (*M. aquatica* × *arvensis*) for Linnæus first described the hybrid in his Systema (1759) as *M. verticillata*. In his second edition of Species Plantarum (1762) he appeared to have forgotten the first name and created *M. sativa* in its place. This was pointed out by the late J. G. Baker on the English Mints, and by Briquet in *Les Labiées des Alpes Maritimes*, pp. 85, 86.—J. Fraser. Smith described his *acutifolia* as having patent (or rarely recurved) hairs on the pedicels, shortly petioled leaves and sessile whorls of flowers. These examples possess none of these characteristics, upon the first of which Smith laid great stress. Mr. Fraser's specimens may be somebody's *acutifolia*, but how can it be Smith's ?—C. E. Salmon.

Calamintha sylvatica Bromf. Apes Down, I. of Wight, v.c. 10, September 1888. Coll. J. H. A. Steuart Comm. Nat. Mus. of Wales.

Stachys recta L. ? Hitchin, Herts., 1925.—J. E. Little. Mr. Lacaita agrees ; but Mr. Pugsley writes, "This is *S. annua* L., I think. The falciform calyx-teeth are a characteristic feature."

Plantago Coronopus L., form approaching var. *Sabrinæ* Cardew et Baker fil. Steep Holm, Bristol Channel, June 3, 1925, on limestone rock, where there appear to be intermediate states between the type and the variety.—H. S. Thompson. I should refer this to *Plantago Coronopus* L., var. *Sabrinæ* Bak. fil. and Cardew.—E. G. Baker.

P. Coronopus L. Reculvers, E. Kent, Sept. 11, 1924.—C. E. Salmon and W. R. Sherrin. We have compared this with Dr. Wirtzen's Herb. plant. select. No. 393, *P. Coronopus* L. *forma bipinnatifolia*, and should be inclined to refer the plant from Reculvers to this form. In the type the leaves are very slightly bipinnatifid.—E. G. Baker.

Illecebrum verticillatum L. New Forest, Hants., Sept. 14, 1925.—L. B. Hall.

Polygonum Persicaria L., var. *elatius* Meisn. [652]. Wretton Fen, W. Norfolk, Aug. 10, 1925.—J. E. Little.

P. maculatum Trim. & Dyer [660]. Near The Kennels, Wallington, W. Norfolk, v.c. 28, Aug. 9, 1925.—J. E. Little A small slender form, with perianth of a pure colour from whitish to rose. Upper ochreæ glandular ciliate on the margin, not otherwise fringed. This may perhaps be the var. *gracile* Trim. & Dyer. (It is very distinct from the stout form with dingy rose-coloured perianth, occurring in fields close at hand, which is probably the var. *densum* Trim. & Dyer.) The stem is spotted, the peduncles slightly and the perianth distinctly glandular. The 2-styled fruits are bi-concave.—J. E. Little. *P. maculatum*, never a satisfactory name, and I believe not recognised on the Continent, has been reduced to *P. nodosum* Pers.—H. S. Thompson. Mr. Pugsley writes: "The earliest name for this plant as a species is apparently *P. nodosum* Persoon, Syn. i. 440 (1805)."

P. Bellardi All. Casual at Avonmouth Docks, West Glouc., Oct. 27, 1925. A bushy plant of erect habit, with pitted seeds and flowers smaller than *P. arenarium*. Agrees well with French specimens from Lot and Garonne. I had it in 1904 from St. Philip's, Bristol. But the Polygona of this group are difficult to identify, and this one may have come from some far-off land.—J. W. White. Mr. Noel Sandwith has examined the spp. allied to *P. aviculare* that are represented in the Kew Herbarium from India and China, and finds nothing that at all matches. He considers that the naming should stand.—J. W. White. *P. Bellardi* is perhaps rather a weak species. This specimen is what is usually called by that name on the Continent, but I have never seen authentic examples from the original habitat in Piedmont.—C. C. Lacaita.

Rumex palustris Sm. [653]. Wretton Fen, W. Norfolk, Aug. 10, 1925.—J. E. Little and J. L. Luddington. I found this plant in four distinct stations in W. Norfolk, and in each case *R. maritimus* was absent, although it is recorded in the district. Whether or no this plant—the British plant—is a hybrid is an interesting question; so far I am inclined to think that it is not. Dr. Druce, in conversation, threw doubt upon the identification with *R. limosus* Thuill. I have accordingly gone back to the name *R. palustris* Sm.—J. E. Little.

Euphorbia Esula L. Toll House, W. Kent, July 1924; Plumstead, W. Kent; July and Aug. 1925.—St. John Marriott.

E. Cyparissias L. Dartford Heath, W. Kent, v.c. 16, June 1925.—St. John Marriott. (2) Sand-pit, near Crayford, Kent, June 27, 1925.—I. Helsby.

Mercurialis annua L. Arable field on Lythe Hill Estate, near Haslemere, Surrey, July 23, 1925.—I. A. Williams. Only recorded from near Dorking Station in Dunn's *Flora of South-West Surrey*. This Haslemere locality was shown me by Mr. E. W. Swanton, who says the plant has been there for several years. The average size of the female plants was much greater than that of the males. Is this usually the case?—I. A. Williams.

Betula pubescens Ehrh., var. *parvifolia*. Natural hill-wood near Laggan Bridge, Easterness, v.c. 96, July 26, 1911. Coll. E. S. Marshall. Comm. Nat Mus. of Wales. For note on this plant see B.E.C. Report for 1911, p. 123, and W.B.E.C. Report, 1911, p. 361. It appears to be a mountain form of *Betula pubescens* Ehrh.—A. B. Jackson.

Salix triandra × *viminalis*, var. *Trevirani* (Sprengel). Near the Pumping Station, Mortlake, Surrey, v.c. 17, catkins May 1, leaves July 17, 1925. The catkins are not in all cases as good as they should be. They are rather silky and white for some time before the stamens elongate, and they get gathered by the general public. The stipules are liable to ripen and fall off early. The earliest ones are broadly ovate and truncate, gradually changing to oblong and oblique like those of *S. triandra*, while the uppermost are more or less pointed. Stamens 2—3.—J. Fraser.

S. fragilis L. ♂. [589.] Pegsdon, Beds., v.c. 30, May 4 and Sept. 18, 1925.—J. E. Little. For notes, see B.E.C. Report 1924, p. 736. This broad-leaved form is not infrequent and is of wide distribution. I have seen it this year, 1925, in Sussex (Black Down, planted), Surrey (near Cut Mill Pond), Herts. (Hitchin and Welwyn), Norfolk (Wallington Park and Wretton Fen).—J. E. Little. Later: This spring, 1926, I have procured the flowers, which are, I believe, regularly diandrous.—J.E.L. This is what I call *S. fragilis* × *triandra*. The leaves are too broad for their length and too dark green for *S. fragilis*. The leaves are also large for this hybrid. I have gathered broader ones, but they were the result of breakages by the wind. When the catkins are half grown they are very shaggy, with yellow-grey hairs that fall off quickly as the leaves reach full length. The nectaries are often very erratic and give rise to stamens or small ovaries. The catkins are too stout for *S. fragilis*, and often bifurcate.—J. Fraser.

S. fragilis L. (Broad leaves). [629.] Digswell, Herts., June 13, 1925.—J. E. Little. This is identical with No. 589, and some of the shoots show the broad stipules of *S. triandra*. I name it *S. fragilis* × *triandra* (*alopecuroides* Tausch.). The ♂ *S. fragilis* has always been a scaree tree, for Smith had never seen it. The above named hybrid is most often ♂.—J. Fraser.

S. fragilis L. ♂. Form producing a proportion of branched catkins, about one to each shoot. From a tree growing on the Surrey-Hampshire border at Hammer, near Haslemere, May 23, 1925. I found one trifid catkin, the rest were normal or bifid.—I. A. Williams. It is *S. fragilis* × *triandra*, which is widely distributed in Surrey. Besides the bifurcate catkins, the flowers are often very erratic, and additional stamens and ovaries sometimes grow from the nectaries. The primordial leaves and catkins are very shaggy when half grown—too hairy for *S. fragilis*.—J. Fraser.

S fragilis L., Subsp. *decipiens* (Hoffm.). Redhill Marsh, Surrey, v.c. 17, May 17 and August 16, 1925. [Ref. No. 562.] The leaves of Hoffmann's species bear a considerable resemblance to those of *S. fragilis*, and the twigs are also very brittle in spring; but the tree is very much smaller, and the twigs very short on old trees. Only the ♂ plant is known for certain in Britain, and the catkins never more, perhaps, than six on a twig, usually 1—3.—J. Fraser.

S. alba L. ♂. [622.] Purwell, Hitchin, Herts., May 12 and July 9, 1925.—J. E. Little. Yes; *S. alba* so far as the leaves show their characters in July. I like to gather the leaves of this species in September, when they show whether or not it is the var. *caerulea* (Sm.). Even Essex trees of it can be as hairy as this in July.—J. Fraser.

S. alba × *pentandra* Chilmead Farm, Redhill, Surrey, v.c. 17, May 17 and July 25, 1925. The specimens are from a large, wide spreading bush, which may have been cut down some years ago.—J. Fraser.

S. aurita × *cinerea*. Mitcham Common, Surrey, v.c. 17, Sept. 1925. These specimens show very late catkins taken from a bush I believe to be *S. aurita* × *cinerea*. I have seen no explanation of them. Are they especially characteristic of hybrids? I have them from *S. undulata* Ehrh. —D. G. Catcheside. I should prefer to call this *S. cinerea* L. The hybrid takes on many and curious forms, being often more like one parent than the other. I like

to see more rugosity of the leaves, more dense reticulation beneath, and more pubescence even in September, whether grey or ferruginous.—J. Fraser.

S. aurita × *cinerea* ♂. [613.] Near Ash Brook Cottages, Hitchin, Herts., Mareh 6 and Sept. 11, 1921; April 7, 1925.—J. E. Little. Agreed.—E. F. Linton. I agree to this. The shape of the leaves and the moderate rugosity, as well as the bracts of the catkins, show the influenee of *S. cinerea*; but the short, obovate charaeter of many of the leaves, their considerable pubeseenee in September, and the short ovoid flower heads indicate *S. aurita*.—The hybrid is extremely variable.—J. Fraser.

S. aurita [× *cinerea*]. By R. Mole, Box Hill, Surrey, v.e. 17, April 12, 1924, and May 30, 1925.—E. C. Wallace and D. G. Catcheside. The shape of the leaves, their scanty pubeseenee and the obovate blaek braets of the catkins all point to *S. cinerea*. It is a form which would be nearly glabrous if the leaves had been collected in August or September. The eatkins are small and the twigs slender, but *S. cinerea* can be like that when under unfavourable conditions.—J. Fraser.

S. caprea × [*cinerea* Wimmer (= *S. Reichardti* A. Kern.)] By stream, Lower Failand, N. Somerset, Mareh 17 and July 9, 1925.—Ida M. Roper. Judged by the foliage this comes nearest *S. caprea*. The usual wavy erenatures, however, have mostly been replaced by shallow serratures or crenatures. The quickly glabrescent buds of this leafy shoot suggest *S. aurita*. The small size of the catkins, the small ovaries, the very short styles, and the ferruginous colour of the greatest number and greatest parts of the bracts of the catkins all suggest *S. aurita*. I would prefer to call this *S. aurita* × *caprea* (*capreola* J. Kern.). I should have liked to see the buds in August or September, when plumped up for next year's flowering.—J. Fraser. The slender lateral branches, more broadly ovate leaves with tip frequently oblique and twisted, smaller catkins, sometimes narrow floral bracts, and style often very short or absent suggest to me a slightly different origin, viz. *S. aurita* × *caprea*.—J. E. Little.

S. repens L. ♀. [596.] Trotton Marsh, Borden Wood, W. Sussex, May 5, 1924.—J. E. Little. Leaves from same station as fls. of 595 ♂ and 596 ♀, but not from same bushes, Sept. 9, 1925.—Miss K. Burne. Comm. J. E. Little. The flowers agreed to by E. F. Linton and J. Fraser. A very good example of *S. repens* L., f. *fusca* (L.) as deseribed and figured by Smith. The leaves are elliptic-oblong, with straight points and a few glandular

serratures. This form often loses much of its silkiness by August, and blackens in drying. There is nothing in the catkins of *S. repens* to separate the forms.—J. Fraser.

S. repens Linn., var. ——— [Ref. No. 2849.] Epsom Common, Surrey, Sept. 20, 1925.—C. E. Britton. Yes; *S. repens* Linn., f. *fusca* (Linn.). It produces rather long, ascending or sometimes subercct branches. The leaves are mostly nearly glabrous beneath, though usually silky white in May and June. I have it from Epsom Common. This is the second flowering — J. Fraser. This seems to be our more frequent form of the species, with oblong-lanceolate leaves, which by September have lost a good deal of the silky clothing on the underside.—J. E. Little. Distributed from S. Lond. Bot. Inst.

S. Andersoniana × *phylicifolia.* Det. J. Fraser. Bank of ha-ha, Kew, Surrey, v.c. 17, May 16 and July 11, 1925.—D. G. Catcheside. The broadly oval leaves, with sub-cordate base, the blackening and the serrations running to the apex make this close to *S. Andersoniana*; but the quick glabrescence and foliage of the twigs, as well as the pubescence of the ovaries, show the presence of *S. phylicifolia.* Not native in Surrey.—J. Fraser.

Populus canescens Sm. ♂ Clifton, West. Glouc., March 20, 1912. ♀ Mangotsfield, West Glouc., March 26, 1913. Fol. Mangotsfield, July 1915.—J. W. White. Yes, characteristic *P. canescens* Sm., illustrated by well selected specimens. The female tree appears to be much rarer than the male.—A. B. Jackson. Male and female catkins having been placed on the same sheet, I am not sure from the label of the origin of the leaves. The two pieces with leaves appear to be *P. canescens*, in which the nerves run out more distinctly to the tips of the lobes than in either *P. alba* or *P. tremula.* The male catkins, which are without any stem-piece, are less silky hairy than in *P. tremula*, and are apparently *P. canescens.* On one leaf-piece the outer bud-bracts are partly glabrescent and shining at the tips; this indicates *P. canescens.* The material might be a little more generous. When trees are dicecious it is safer not to put ♂ and ♀ on the same sheet. As Prof. Henry remarks of *P. tremula*, so also, both in *P. alba* and in *P. canescens*, glands (1, 2, or I think even 3) are occasionally found at the junction of blade and petiole. Mr. White's leaves show them here and there.—J. E. Little.

P. [*canadensis* Moench] ♀ [621] (det. C. E. Moss). Planted. The Avenue, Hitchin, Herts. (see W.B.E.C.R. 1913, 459), May 3 and Oct. 6, 1925.—J. E. Little. This is apparently the tree

named *P. canadensis* by the German dendrologists, but doubtfully of Moench. It is best, I think, to call it *P. marilandica* Bosc., which, according to Henry, is its correct name, and under which it is known at Kew. It is always found as a female tree, and seems to be much less common in cultivation than *P. serotina* Hartig. The latter is invariably a male tree.—A. B. Jackson. *P. marilandica* Bose. This tree is identical with specimens of this name dating from 1833. It is usually called *P. canadensis* ♀ in Germany, and it is *P. canadensis* Hartig (1851), which is a hybrid. It is not *P. canadensis* Michaux (1813), a name given to the native American species. See *Trees of Great Britain*, VII, p. 1807. Rehder, in *Journ. Arnold Arboretum*, IV, iii, 161 (1923), argues that *P. canadensis* Moench (1785) is the oldest name for the hybrid between the American and European black poplars, and then uses this name as follows: 1. *P. canadensis* Moench, var. *serotina* is the Black Italian Poplar (= *P. serotina* Hartig); 2. *P. canadensis* Moench, var. *marilandica* is the hybrid, which I call *P. marilandica*. I consider this a needless complication and inaccurate, as no one knows what *P. canadensis* Moench really is; and it is more convenient to call a tree by two names (*P. marilandica*) than by three names *P. canadensis* var. *marilandica*.—A. Henry.

P. ——— [616]. Planted. "St. Ibbs," St. Ippolyts, Herts., April 15 and Sept. 3, 1925.—J. E. Little. Mr. A. B. Jackson names this *P. monilifera* Ait., but Prof. A. Henry at first demurred to the determination. Stamens, average of 10 flowers, 42·7, tree 60 ft. Like [618] near by, this tree is very different from any poplar I have gathered, both in the number of stamens, the large broad floral bracts, and the large, often cordate, acuminate leaves with ciliate margins. The catkins are large and flat (15 mm. expanded).—J. E. Little. Both foliage and male catkins do not differ essentially from native specimens at Kew with which I have compared it. This tree is very rare in cultivation in this country, only two or three having been noted. It occurs wild, according to Henry, in Ontario, Quebec, New England, New York, and Pennsylvania.—A. B. Jackson. Prof. Henry wrote later: This is *P. deltoidea* Marshall, the American (northern) Black Poplar (= *P. monilifera* Ait.). It has the fimbriated scales of the species, and cannot be *P. angulata*. I withdraw my demur, as I have found the scales in the flower.

Empetrum nigrum L. Moor above Sowden Beck, Jervaulx, N. Riding, Yorks, alt. circa 900 ft., June 3, 1925. All observed was, I believe, ♂.—J. E. Little. See in Journ. Bot., June 1926,

interesting report on Mr. R. D'O. Good's paper on the genus *Empetrum*, read at the Linnean Society.—H.S.T.

Ulmus nitens Moench. Det. A. Henry. Between Grove Road, Hitchin, and Wilbury Hill, Herts., Feb. 16, 1923 and Sept. 13, 1925.—J. E. Little. Foliage in very poor condition, and certainly not that of typical *U. nitens*, the leaves being smaller and resembling those of the Wheatley Elm (*U. nitens* var. *Wheatleyi*) in being broader in proportion to their length. What is the habit of the tree?—A. B. Jackson.

Herminium monorchis Br. Norbury Park, Surrey, July 1859. Leg. John Linnell, jun. I feel rather ashamed to send the Club so many specimens of an uncommon orchis, each with a tuber! They were collected in 1859, and are a good example of what happened in the "bad old days," when the preservation of rare species for the benefit of coming generations was not in the least considered. Such conduct, I am glad to say, would not be tolerated nowadays in either of the Botanical Exchange Clubs. For information regarding the collector see *Lathyrus Nissolia*.—C. E. Salmon.

Juncus inflexus × *effusus*. Northchapel.—R. J. Burdon. Very interesting. Pith continuous; capsules very like those of *J. glaucus* (*inflexus*), but more abruptly contracted into a mucro. The seeds appear quite fertile. The plant is, I believe, *J. glaucus* (*inflexus*) × *effusus*, much on the *glaucus* side. In many details it will not agree with Syme's description of *J. diffusus*; he was evidently describing a very different (and sterile) form of the same hybrid.—C. E. Salmon.

J. diffusus Hoppe = *J. glaucus* × *J. effusus*. Near Woking, Surrey, Sept. 11, 1925.—I. A. Williams. I agree that this is *glaucus* × *effusus*, and it is apparently quite sterile.—C. E. Salmon. Yes; pith continuous. Panicle as in *J. glaucus*. The colour of the basal leaf-sheaths is an important point. It would be well to show a root-piece.—J. E. Little.

J. obtusiflorus Ehrh. Near Woking, Surrey, Aug. 17, 1925. I send these two specimens as vouchers for the record. I did not find the plant in sufficient quantity to warrant my taking more of it.—I. A. Williams. I agree; too young to show any fruit.—C. E. Salmon.

Sparganium minimum Fries. Recent cutting in peat, used as drinking place for calves, Asheott Moor, N. Somerset, Aug. 17, 1925. A few years ago this cutting had no sign of the plant, which is now choking it.—H. S. Thompson.

Potamogeton polygonifolius Pourr. Stream near Thursley, Surrey, June 27, 1925.—I. A. Williams. These plants came from exactly the same spot as those distributed last year as var. *pseudo-fluitans* and gathered in November 1924. In June 1925 the peaty stream was very low. The plants appeared fairly typical, though one or two shoots showed the long narrow leaves just beginning. On November 29 the long leaves were once more in great evidence, though not practically immersed as, I think, they were in 1924. This was probably due to 1925 being a drier season, and it seems as if the form distributed last year was an autumn leaf-form, which varies in extremity with the quantity of water and the swiftness of the current.—I. A. Williams. Correct.—A. Bennett.

P. [*lucens* L.]. R. Wye, near Ross, Herefords., v.c. 36, Aug. 1925.—F. J. Sheldon. A peculiar Potamogeton, gathered many years ago by the late Augustin Ley, and more recently by Miss Vachell. For many years both Mr. Fryer and I hesitated as to its name. But we came to the conclusion it is a form of *P. angustifolius* Bercht. et Presl. = *P. Zizii* Roth. The semi-fruiting is just the state in which it occurs in the Cambridgeshire Fens, although the foliage is much narrower. I have many specimens from Ross-on-Wye from the late Mr. Ley.—A. Bennett.

Scirpus nanus Spreng. (**1**) Brackish lake near Criccieth, Carnarvonshire (submerged), Aug. 30, 1925, No. 416. (**2**) Muddy edge of salt lake, Pwllheli, Carnarvonshire, Aug. 20, 1925, No. 417.—H. W. Pugsley. No spikelets could be found on this sedge in either of these localities in 1925, although at Pwllheli the plant was abundant over a considerable area, creeping extensively in the wet mud.—H. W. Pugsley.

S. filiformis Savi. Near Barmouth, Merioneth, July 1923.—W. R. Sherrin.

S. setaceus L. Near Barmouth, Merioneth, July 1923.—W. R. Sherrin.

Eriophorum alpinum L. Near Gorner Gorge, Zermatt, Switzerland, Aug. 5, 1890.—H. Ward. Comm. W. R. Sherrin.

Carex disticha Huds. Thursley Common, Surrey, June 27, 1925.—I. A. Williams. A very rare plant in S.W. Surrey, I think. Dunn only records it from Hartmore Bottom.—I.A.W. Yes; not at all a common plant in Surrey.—C. E. Salmon. Yes; it would be a help if the underground parts were shown, or a note added as to their character.—J. E. Little.

C. muricata L. Embankment of Thames, Putney, Surrey, June 7, 1924.—D. G. Catcheside. By the long-beaked fruits, etc., this is clearly *C. contigua* Hoppe.—C. E. Salmon. *C. contigua* Hoppe.—J. E. Little.

C. contigua × *vulpina*. Side of lane near Whitchurch Halt, N. Somerset, June 18, 1925. Both species there in considerable variety, as in 1922, and it seems impossible to separate some of these variable plants from others believed to be hybrids.—H. S. Thompson. A very interesting gathering. Collectors have always the best opportunities of naming hybrids correctly, and Mr. Thompson appears to have good grounds for naming his plant *vulpina* × *contigua*. Whilst no doubt nearer *vulpina*, the narrower based perigynia point to *contigua*, and the majority of them contain barren nuts. Some examples mimic, very closely, *C. vulpina*, var. *nemorosa* (Rebent.).—C. E. Salmon. Comparing the two sheets gathered in 1922 and 1925 distinct difference is evident between them. That of 1925 has stems moderately stout, apparently sharply angled; the perigynia (immature) up to 4·5 mm. are plainly nerved on both faces from base to tip, and are somewhat abruptly contracted into the beak, which has divergent points and is distinctly serrulate. The ligule is very long, up to 12 mm., of *vulpina* type. The 1922 specimen has more slender, less acutely angled stems; narrower, more rigid leaves; the perigynia relatively broader, more faintly nerved externally and scarcely at all internally, the points of the beak less divergent, only obscurely serrulate. The ligule is about 4 mm. long, and of *contigua* type.—J. E. Little.

Mr. Little has given much critical attention to these gatherings. Though I retained none of the 1925 supposed hybrid, and only one exceptional sheet gathered in 1922, I agree (and observed last winter) that the 1922 gathering is nearer *contigua*, and that of 1925 nearer *vulpina*. I still hope to dig up some plants for Mr. Salmon to grow and watch. I also find that my own sheet of *C. vulpina*, var. *nemorosa* Rebent. (4422) of 1922 is only *vulpina*; but note that Mr. Salmon says some of the 1925 examples under *contigua* × *vulpina* mimic very closely var. *nemorosa*.—H. S. Thompson.

C. Pairaei. Dartford Heath, W. Kent, June 1925.—St. John Marriott and W. R. Sherrin. Correct, I believe; excellent material.—C. E. Salmon. Although the perigynia are somewhat longer than the measurements usually given (3·5 mm. Kükenthall, Coste), their proportions are those of *C. Pairaei*, and not of *C. contigua*.—J. E. Little.

C. divulsa Stokes. (1) Near Black Down, W. Sussex, July 3, 1925.—J. E. Little. So I should name it, in excellent condition.—C. E. Salmon. (2) Parkhurst, I. of Wight.—R. J. Burdon. Yes.—C. E. Salmon and J. E. Little.

C. axillaris Good. = *C. vulpina* × *remota*. Norton Heath, near Ongar, Essex, Sept. 12, 1925.—I. A. Williams. A large tuft of this sedge was growing among a great quantity of *C. vulpina*. I did not find *C. remota* in the immediate neighbourhood, but it was possibly there, for Mr. A. H. Carter, whom I was with, found it about a quarter of a mile away —I.A.W. I agree; nuts, apparently, quite sterile.—C. E. Salmon. I think so.—J. E. Little.

C. pallescens L. Farningham, W. Kent, June 1925.—St. John Marriott. Yes; luxuriant specimens.—C. E. Salmon. Yes.—J. E. Little.

C. distans L. [637.] Walsworth Upper Common, Hitchin, Herts., v.c. 20, July 18, 1925.—J. E. Little. I agree. From a station given for this species—so rare inland—in Pryor's *Flora*.—C. E. Salmon.

C. distans L. [635 and 636.] Between Grove Mill and Hyde Mill, Hitchin, Herts., July 7, 1925.—J. E. Little. Both passed by C. E. Salmon, No. 636 being merely a smaller form simulating *C. fulva* Good.

C. hirta L., variety. Little Frensham Pond, Surrey, June 29, 1925.—I. A. Williams. Is this a named variety? The leaves, sheaths and glumes are quite, or almost, glabrous. It grows in two forms: (1) in the sand by the side of the pond, a short plant with the male spikes very small and poor; (2) in the shallow waters of the pond, a taller plant, with the male spikes much better developed. Each of the sheets sent herewith contains specimens of both forms —I.A.W. Is var. *hirtaeformis* Pers.—C. E. Salmon. Yes, it seems to be the form with glabrescent leaves called *C. hirtaeformis* Pers.—J. E. Little.

C. Pseudo-Cyperus L. Little Frensham Pond, Surrey, June 29, 1925.—I. A. Williams. In considerable quantity at one end of the pond. Not recorded in Miss R. Jackson's list of plants within six miles of Haslemere, published by the Haslemere Nat. Hist. Soc.—I.A.W. Yes.—J. E. Little.

Panicum Crus-Galli L. Quarry near Oulton, E. Suffolk, Sept. 1925.—St. John Marriott.

P. miliaceum L. Quarry near Oulton, E. Suffolk, Sept. 1925. —St. J. Marriott.

Spartina stricta Roth. Salting, Canvey Island, Essex, v.c. 18, Oct. 4, 1924.—D. G. Catcheside.

Leersia oryzoides Sw. Near Woking, Surrey, Sept. 11, 1925. Growing in considerable quantity, but with scarcely any flowers visible.—I. A. Williams.

Agrostis setacea Curt. Cawsand Beacon (summit), Devon, June 1923.—W. R. Sherrin.

A. tenuis Sibth. var. *aristata* Parn. forma. Belstone, Devon, June 1923.—W. R. Sherrin. This only differs from the plant described by Parnell in its greater height.—W. O. Howarth.

A. tenuis Sibth. var. *pumila* (L.) (1) Belstone, Devon, June 1923.—W. R. Sherrin. (2) Low Rough Hill, Askham, Westmorland, July 12, 1925.—L. B Hall. (3) Knock Ore Hill, Westmorland, July 27, 1925.—L. B. Hall. (4) Littlestone, E. Kent, June 1925.—St. John Marriott.

Apera interrupta Beauv. Thetford, Suffolk, Aug. 1923. Leg. Mr. Dixon-Hewitt. Comm. W. R. Sherrin.

Deschampsia flexuosa Trin. Summit of Cader Idris, Merioneth, July 30, 1924.—W. R. Sherrin.

D. flexuosa Trin. var. *montana* (Huds.). Clogwyn-du'a-Arddu, Snowdon, Carnarvonshire ; rocky ledges, alt. ca. 2400 ft., Sept. 1, 1924.—D. G. Catcheside.

Koeleria —— [intermediate between *gracilis* and *britannica* : teste W. R. Sherrin.] Littlestone, E. Kent, June 1925.—St. John Marriott. I should place this under *K. gracilis* as described by Ascherson & Graebner (Syn. Mitteleur. Fl. p. 359), who observe that the culm under the panicle may sometimes be hairy. Other characters all point to *K. gracilis*.—W. O. Howarth.

K. gracilis Pers. var. *britannica* Domin. Mitcham Common, Surrey, v.c. 17, June 22, 1925.—F. J. Sheldon

Poa annua L., var. *reptans* Hausskn. Thicket, Tyntesfield Park, Wraxall, N. Somerset, v.c. 6, Feb. 18, 1925.—Ida M. Roper.

P. nemoralis L. Nos. 1 and 2. Welwyn, Herts., June 1925. W. R. Sherrin and J. E. Little. No. 1 is var. *uniflora* M. & K. No. 2 is var. *vulgaris* Gaud.—W. O. Howarth.

Glyceria maritima Mert. and Koch. Seaford, Sussex, July 7, 1924.—W. R. Sherrin.

Festuca rottboellioides Kunth. Seaford, Sussex, July 7, 1924. —W. R. Sherrin.

F. ——— Gomshall, Surrey, v.c. 17, July 11, 1925.—W. R. Sherrin. Is *F. ovina, vulgaris* Hack. —W. O. Howarth.

F. ——— Dungeness, E. Kent, June 1925.—W. R. Sherrin. *F. ovina, vulgaris* Hack.—W. O. Howarth.

F. ——— Crayford, W. Kent, June 27, 1925.—W. R. Sherrin. *F. rubra, vulgaris* ad *barbata* vergens (2 sheets).—W. O. Howarth.

F. rubra var. ——— Roadside waste, Woking, Surrey, July 1925.—W. Biddiscombe. *F. rubra, fallax* Hack. (*commutale* Gaud.).—W. O. Howarth.

Brachypodium sylvaticum Beauv. var. *glabrescens* Syme. Near Westhumble, Surrey, v.c. 17, Aug. 15, 1925. Ref. No. 2825. Leg. C. E. Britton. Comm. W. R. Sherrin.

B. pinnatum Beauv. var. *pubescens* Gray. Roadside, Little Malvern, Worcestershire, July 1925.—A. J. Crosfield. Only two sheets show spikelets with any pubescence.— W. O. Howarth. Mr. Crosfield writes that his attention was called to the plant by Mr. R. F. Towndrow.

Agropyron repens Beauv. var. *lasiorachis* Hack. Waste ground, Streatham, Surrey, July 1925.—F. J. Sheldon.

Lepturus incurvatus Trin. Seaford, Sussex, July 7, 1924.— W. R. Sherrin.

Hordeum jubatum L. Waste ground, Splott, Cardiff, Glamorgan, June 7, 1925. Grain-sifting alien.—A. E. Wade. Comm. Nat. Mus. of Wales.

Equisetum palustre L., var. *polystachyum* Weigel. Margin of gravelly road, near Alum Bay, I. of Wight, Sept. 1925.—James Groves.

Polystichum angulare Presl., var. *acutum* Wollaston. Wood, Lower Failand, near Bristol, N. Somerset, March 17, 1925. Fronds 3 ft. long. The pinnules "are much auricled, the shape being acute narrowish falcate, distinctly stalked." See Lowe, *Our Native Ferns*, fig. 45.—Ida M. Roper.

Chara hispida L. Folkestone, E. Kent, June 1925.— W. R. Sherrin and St. John Marriott.

C. ——— Pond on slope of High Down, Pegsdon, Bedfordshire, Sept. 18, 1925. I hope these are not too late-gathered and fragmentary for identification.—I. A. Williams.

C. ——— Artificial pond at Wheelside, Hindhead, Surrey, July 28, 1925. This pond was made in Sept. 1921, and stocked with weeds from Frensham, Hammer, and Pride of the Valley ponds. The *Charae* no doubt came originally from one of these ponds.—I. A. Williams.

NOTE.—*Back numbers of many of the Reports may be bought from the Treasurer at prices to be arranged with him.*

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Forty-first Annual Report (200 copies), 49 pages and wrapper	27	10	6			
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31*st December*, 1925.

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Vol. III., No. 10.

THE

FORTY-THIRD ANNUAL REPORT

OF THE

WATSON

Botanical Exchange Club

1926—27.

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THE WATSON

Botanical Exchange Club

REPORT FOR 1926—27.

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W. Biddiscombe ...	72
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Total	2893

The total number of sheets sent for distribution shows a decided increase on that for recent years. Although a new Desiderata List has not been issued, members have kept the study of critical groups to the fore, and nearly all of these were represented by a larger or smaller number of gatherings. On the whole, the Referees were satisfied with the material they saw; though, it must be pointed out, that quality to a greater extent than quantity is to be desired and especially needed in specimens for study. Incomplete and mouldy examples are useless and are better destroyed.

Lt.-Col. Wolley-Dod wishes me to emphasise the importance of having gatherings homogeneous in the genus *Rosa*, and great care should be taken that sets are gathered from a single bush *only*. This, of course, applies with equal force to certain other genera and groups.

I must also emphasise the necessity for members to obey the rules. Infringements cause endless trouble and confusion to everyone concerned in the working of the Club. Among those which cropped up in this year's distribution might be mentioned: neglect to send latest edition (11th) of London Catalogue; gathering not enclosed in a wrapper bearing name of plant, with number in London Catalogue and number of sheets in bold lettering; use of too large or too small sheets; untidy, badly written labels; neglect to send list of data (in lieu of extra label) for the Report; insufficient data on labels. I feel I must also protest against the practice of sending single sheets for determination; it would be simpler for the member concerned to send such plants direct to the Referee; and he would probably derive more benefit, for any difficulties could be explained to the Referee. I have no doubt the Secretary would willingly supply the address of any Referee that might be wanted.

In addition to those sent to contributing members, parcels were sent to Kew, the British Museum, and some half-dozen non-contributing members who applied for surplus.

Our best thanks are due to the Referees, and for notes received from Messrs. A. Bennett and C. E. Britton, Dr. E. Drabble, Messrs. J. Fraser and Jas. Groves, Prof. A. Henry, Messrs. W. O. Howarth, A. B. Jackson, J. E. Little, W. H. Pearsall, H. W. Pugsley, H. J. Riddelsdell, Miss I. M. Roper, Messrs. C. E. Salmon, H. S. Thompson, J. W. White, Lt.-Col. Wolley-Dod, and others.

D. G. CATCHESIDE, Jun.,

28, *Greyswood Street,*
Streatham, S.W. 16. *Distributor.*

We are under an obligation to Mr. David G. Catcheside, Jun., for the efficient way in which he managed the distribution; and I am personally indebted to him for his willing help in the preparation of the Report. Probably never in the history of the Club has so young a member acted as Distributor. Indeed, while some of the older members are perforce less active than formerly, it is gratifying that several quite young men are doing very useful and observant work as collectors. We still, however, much need a few active members from both Scotland and Ireland, and others from the north of England.

We are grateful to Dr. Karl Reehinger for the large and interesting parcel of specimens sent from Southern Austria and elsewhere, which I understand comprised many rare plants. But

it has not been found feasible to mention Continental plants in the Report, except when notes have been written upon any.

Since the publication of the last Report we have heard with regret of the death in 1925 of Miss Louisa Day, who joined in 1908; and of Mr. William Bell, of Leicester (1862—1925), a former member of this Club who acted as Distributor for the two years 1905 and 1906. The death of Dr. Long is referred to later.

Revised Regulations were posted to all members on March 24th. The revision was largely based on suggestions and criticisms from Col. Wolley-Dod, and I also had the help of some half-dozen other experienced members before finality was reached; so it is hoped the result will meet with a wide approval. A sufficient stock has been printed to last some years, both for new members and others who may from time to time need fresh copies.

An effort will be made to compile and print a suitable Desiderata List for next year. Volunteers are wanted to help in the work.

Too many quite common and ordinary plants appear to have been contributed to the last exchange. Several collectors should realise that some species may be quite uncommon or wanting in certain districts, and yet very widely spread throughout the country.

It is important that the tendency of certain members to omit from their labels the name of the county or vice-county and to merely give the V.C number should cease. It stands to reason that the Watsonian numbers, and especially the vice-comital, are often both arbitrary and circumscribed, though useful in their place. To Continental botanists they are particularly perplexing. It is, moreover, desirable to take fairly broad views in studying the distribution of species, even in a small country like Great Britain.

Reference Numbers. I have informed Mr. Lousley that I have taken the liberty of omitting from the Report some of his reference numbers to ordinary species, as being quite unnecessary for our purpose. In this Club the use of reference numbers should not be overdone. (See par. 4 in the Regulations). It may be helpful to mention that Mr. Lousley's method is for each year to be represented by a letter. Last year that letter chanced to be "X," which might be confused with the sign for hybrid; this year it will be "Y." Therefore any quotations without the letter would be misleading.

Mr. J. E. Little is collecting opinions on the distribution of *Veronica agrestis*, which he finds a very restricted plant; and

hitherto none of his correspondents consider it common in their district. Further observations from botanists, and some dried specimens, would be useful. It is evident that the species is far less frequent in England than generally supposed. It has doubtless been either overlooked or confused by many of us.

Report 1900–1, p. 20.—Mr. Salmon writes that a re-examination of Mr. C. Waterfall's *Valerianella rimosa* from Carnarvon makes his specimen *V. dentata* only.

Report 1922–23, p. 221.—Mr. Little sent this *Euphorbia* of Mr. Crosfield to Dr. Rechinger, who replied that he makes it *E. virgata* W. & K.

Report 1924–25, p. 301.—*Euphrasia Rostkoviana.* Kittows Moor, Cornwall, J. E. Little (two gatherings). Dr. E. Drabble writes to Mr. Little: "This is quite normal *Rostkoviana.* The plant is typically 'strict,' and the colour is quite often purplish. I do not see why Pugsley calls it intermediate between *Rostkoviana* and *Vigursii.*"

Report 1925–26.—Mr. Little kindly sends several of the following notes and corrections:—

P. 340, line 8 from bottom, *Hieracium decolor*—for radicle *read* panicle.

P. 341, l. 31—*Primula elatior* Jacq. Stony Stratford, Essex, March 1889, J. H. A. Steuart; Comm. Nat. Mus. of Wales. Of course Stony Stratford is in Bucks, and quite out of the area of *P. elatior*, as also is the Essex Stratford on the River Lea. Mr. Wade, of Cardiff, writes that the original label is in the handwriting of the late J. A. Wheldon, so the mistake seems to have been his. I can only suggest that possibly Great Sampford in N.-W. Essex was intended. Specimens from near there were collected in 1898 and sent to the Club by the late C. Bailey.—H.S.T.

P. 342, l. 34—*Scrophularia Ehrharti* C. A. Stevens. The reference is Ann. Nat. Hist. v. i. (1840).

P. 344, l. 15—*Euphrasia Kerneri.* Carnkief, Cornwall, F. Rilstone. Dr. E. Drabble writes to Mr. Little: "Yes; *Kerneri* (small flowered)."

P. 347—*Rumex palustris* Sm. Dr. Rechinger, Vienna, writes (April 7, 1926): "It is much to be regretted that in his time G. von Beck made the serious error of asserting that *R. paluster*

Sm. was a hybrid of *R. conglomeratus* and *R. maritimus*. Unfortunately this erroneous assumption was followed by Ascherson and Graebner in their Synopsis. As against this, Murbeck (Lund, Sweden) and K. Fritsch (Graz, Austria) have made it quite clear that Beck's view is incorrect. *R. paluster* Sm. is the same species as *R. limosus* Thuill." It will be noted that Continental usage is *R. paluster*, *Rumex* being masculine, and *paluster* being a three-termination adjective. On the other hand *silvestris* is only a two-termination adjective, and the form *silvester* would be incorrect.—J. E. Little.

P. 336—*Prunus serotina*. For Plum Cherry *read* Rum Cherry.

P. 339—*Galium palustre*. For Roadside *read* Pondside.

P. 352, l. 30. For flat *read* fat.

P. 356—*Carex divulsa*, "Parkhurst, I. of Wight," should read Parkhurst House, near Black Down, W. Sussex; the same as (No. 1).

P. 334—*Brassica adpressa*, from Avonmouth Docks, leg. Mrs. Sandwith and J. W. White, has been compared by Mr. Little with *B. adpressa* from the Channel Isles, which had a relatively longer beak, with occasional seeds in it; and he suggests that his specimen is *B. nigra*, with which Mr. Salmon agrees. Mr. White says that evidently there was a mixed gathering.

FREDERICK LONG (1840—1927).

On going to press we much regret to hear that Mr. Frederick Long, M.R.C.S., L.R.C.P., of Norwich, passed away on Feb. 23, aged 86. Since joining the Club in 1910 he had been a contributor of specimens every year but one until 1921.

His daughter, Miss Mary S. Long, writes that her father was ill only a few hours, and that up to the last he took an interest in his favourite hobby, and that his friend Mr. Nicholson came every week and spent an hour helping him with his plants, etc., for his eyesight was much impaired.

From the *Eastern Daily Press*, March 23rd, 1927, we learn that his herbarium of some 2000 specimens of British plants was bequeathed to the Norwich Castle Museum. Some of the specimens were gathered as far back as 1859, and the last was added on the day of his death. The collection contains a specimen of the rare grass *Hierochloe borealis* from the original finder, Robert Dick, of Caithness. Dr. Long is stated to have been the first to

have recorded in the British Isles the variety *angustifolius* of *Sonchus arvensis*. He was closely associated with the Castle Museum during the years he was resident in Norwich, and his knowledge and kindly personality endeared him to many citizens. In 1910 Dr. Long undertook the arduous task of compiling a catalogue of the herbarium of J. D. Salmon, which had been presented to the Museum in 1859.

H. S. THOMPSON,

April, 1927. *Hon. Sec.*

Anemone apennina L. In a field amongst a rough undergrowth of young elm suckers near Mitcham, Surrey, March 28, 1926. Known here for the last fifty years, collected by De Crespigny and by A. Bennett in 1873. It grows in company with *Eranthis hyemalis* and *Ranunculus auricomus*.—E. C. Wallace.

Myosurus minimus L. (1) Abundant in a cornfield by Burghfield Church, Berks., May 23, 1926. –J. E. Lousley. (2) Chapel Foot, St. Ippolyts, Herts., May 16, 1926.—J. E. Little.

Ranunculus heterophyllus Weber [1311]. Pond by railway, between Oxshott and Stoke D'Abernon, Surrey, April 19, 1926. —E. C. Wallace and N. Sentance. The var. *triphyllus* (Hiern) of this species. To avoid ambiguity, this variety will in future be cited as *trifidus* mihi.—W. H. Pearsall.

R. peltatus Schrank. ? Pond on the Green at Chiddingfold, Surrey, May 7, 1926.—I. A. Williams. There appeared to be two forms growing together, (*a*) a stouter plant with coarser capillary leaves, which collapse on being taken from the water, and more regularly shaped floating leaves; and (*b*) a slender plant, with finer capillary leaves, not so readily collapsing, and floating leaves very variously cut. The slender form was not showing so many flowers as the stouter one. There are specimens of each form on each sheet. I could find no fully grown fruit at this date. Are there two species in this gathering, or are the differences due to the age of the particular plants ?—I. A. Williams. The specimens are too incomplete to decide.—D. G. Catchside. Probably correct; but my specimen only shows one petal and no fruits.—W. H. Pearsall.

Ranunculus ———. Brackish pool, Heybridge Basin, Essex, June 25, 1926. A stiff form with short and rigid divided leaves, Only one shoot showing any sign of floating leaves, and that only one very small leaf. I noticed this form in only one of the

many pools in this locality.—I. A. Williams. *R. Baudotii* Godr., f. *marinus* (Fries.). The congested heads of small, glabrous carpels; the very long, much-arched peduncles; the short rigid diverging segments of the submerged leaves; the absence of floating leaves, the rather small flowers, and the maritime habitat are characteristic of this form.—W. H. Pearsall.

R. Lenormandi F. Schultz [1031]. In the Tillingbourne, below Broadmoor, Wotton, Surrey, June 12, 1926.—D. G. Catcheside and E. C. Wallace, Comm. E. C. W. Growing in large floating clumps, associated with *Myosotis*, etc.—E. C. Wallace. Typical *R. Lenormandi*—W. H. Pearsall.

× *R. Hiltoni* Groves (*R. Lenormandi* × *peltatus*). Copthorne, Sussex, March 27, 1926. This is a very variable hybrid, and I am afraid some of the sheets display it rather inadequately. —I. A. Williams. "Yes, *R. Hiltoni*—very acceptable. As is usual with hybrids between very different species these differ from others previously distributed. The floating leaves are much larger, and their segments often overlapping; there are more transitional leaves with sessile or longly-stalked and variously fissile segments. The flowers, however, continue to show the influence of *R. Lenormandi* in the narrow, oblong, non-contiguous petals."—W. H. Pearsall.

R. Lingua L. Nr. Stanmore, Middlesex.—I. Helsby. No date. What is its status? Queried for Middlesex in Top. Bot.; not in Bennett's Suppl., nor in the Fl. of Middlesex, 1869; two Middlesex stations appeared in De Crespigny's New London Flora, 1877.—H. S. Thompson.

R. acris L. var. *rectus* Rouy = *R. rectus* Boreau pro-specie. Lawrence Weston, West Gloucester, v.c. 34, May 24, 1926. Corresponds well with specimens from Haslemere distributed by the late Frederick Townsend.—Jas. W. White.

R. arvensis L. (fruits). Purwell Field, Hitchin, Herts., Aug. 31, 1926.—J. E. Little.

Helleborus Smithianus A. Braun; purple-blotched at base of sepals. Winterhead, N. Somerset, March 12, 1926. Six more sheets may be useful, for it was never sent in large quantity.—H. S. Thompson.

H. foetidus L. Headley Lane, Surrey, March 7, 1926. This locality being in danger of destruction through the cutting down of trees and undergrowth, and the erection of buildings, I take the opportunity of sending in a few specimens.—J. E. Lousley.

Aconitum Napellus L. Peperharrow, Surrey, June 22, 1926.—R. J. Burdon. This is the plant called *Aconitum anglicum* Stapf. in the Bot. Mag. 1926, and quoted in Journ. Bot. of the same year, p. 70, which records the latest opinion on all the English forms of Monkshood. Dr. Stapf shows that the plants of the south of England and Wales do not correspond with any found on the Continent. On the other hand, Mr. Barton in 1918 agreed that a specimen from Devon matched the Swiss variety *laciniosum* Seringe (1823), and the new Lond. Cat. has admitted this variety.—I. M. Roper.

Fumaria officinalis L. By the golf links, Burnham-on-Sea, N. Somerset, v.c. 6, June 3, 1926, for confirmation.—Ida M. Roper. Yes; a small-flowered form.—H. W. Pugsley.

F. officinalis L. [Ref. x. 80]. Field near Addington, Surrey, v.c. 17, Sept. 18, 1926.—J. E. Lousley. Poor material, but apparently var. *Wirtgenii* Haussk.—H. W. Pugsley.

F. Boraei Jord. Abundant as a garden weed at Minehead, W. Somerset, June 18, 1925. Determined by Mr. Pugsley to be very near his f. *elongata*.—Jas. W. White.

F. ——— Elf Hall, S. Cumberland, v.c. 70, Sept. 7, 1926.—W. H. Pearsall. Is *F. purpurea* mihi, with more or less depauperate flowers.—H. W. Pugsley.

F. ——— Hall Thwaites, S. Cumberland, v.c. 70, Sept. 15, 1926.—W. H. Pearsall. Is *F. purpurea* mihi, similar to the above.—H. W. Pugsley.

Matthiola sinuata Br. St. Ouen's Bay, Jersey, June 20, 1926.—J. E. Lousley and T. W. Attenborough.

Nasturtium sylvestre R. Br. Same station for four years—waste ground, Farnborough, W. Kent, v.c. 16, 1926.—I. Helsby and St. J. Marriott.

Barbarea vulgaris R. Br. var. *arcuata* Fries (1828) = *divaricata* Trim. & Dyer (1866). Under an alder tree by River Chew, near Chew Magna, N. Somerset, June 9, 1926.—H. S. Thompson. In the absence of mature pods I should prefer to call this simply *B. vulgaris* R. Br.—A. B. Jackson.

Cardamine pratensis L., var. *Hayneana* Welw. Damp places with *C. amara* and *C. pratensis* near Reigate Heath, Surrey, June 1, 1926 [x. 96].—J. E. Lousley and J. L. O'Loughlin.

C. bulbifera Crantz. Vicarage Woods, Mayfield, E. Sussex, April 30, 1926.—A. H. Wolley-Dod.

Sisymbrium Columnæ Jaeq. Waste ground by Bush House, Strand, London, Middlesex, Aug. 3, 1926. [Ref. 1206]. Growing in great abundanee and assoeiated with *Epilobium angustifolium*, *Polygonum Persicaria*, *Erysimum cheiranthoides* and *Senecio viscosus*. —E. C. Wallaee. Should name this *S. pannonicum* Jacq.—C. E. Salmon. The upper leaves of *S. Columnæ* are entire. In Mr. Wallaee's plant they are eut into linear segments eharaeteristic of *S. pannonicum* Jacq., to which I should refer it. Coste describes the siliquas of the latter (under *Sisymbrium Sinapistrum* Crantz) as glabrous; and at maturity they are so; but when immature they are hispid. Both these aliens are beeoming more frequent.—J. E. Little. Others agree to this being *pannonicum*.

S. Columnæ Jaeq. Riddy Lane, Hitehin, Herts., Sept. 6 and Oct. 23, 1926.—J. E. Little. (Question has been raised by Mr. W. H. Pearsall, as to the identification of *S. Columnæ* Jaeq. and *S. orientale* L. The sheets sent may afford opportunity for the discussion of this point.—J.E.L.)

S. Columnæ Jacq. Abbey Wood, W. Kent., v.e. 16, 1926. —St. John Marriott.

Capsella Bursa-pastoris Medik., sub.-sp. *Brittonii* E. At. [Ref. x. 78]. Field near Addington, Surrey, Sept. 18, 1926.—J. E. Lousley. No; that form has larger silieules with more eonvex margins, a deeper sinus, and subaeute lobes. Mr. Lousley's plant has affinities with *C. gallica* and *C. germanica*, but does not exactly match any specimens named for me by Prof. Almquist.—C. E. Britton. E. At. = Ernst Almquist.—H.S.T.

C. B.-p. Medik. sub.-sp. *Druceana* E. At.? [Ref x. 2]. Wall-top, South Croydon, Surrey, March 24, 1926.—J. E. Lousley. Is *Capsella B-p.* (L.) *batavorum* E. At. Dwarf speeimens, but otherwise typical.—C. E. Britton.

C. B.-p. Medik. s.—sp. *anglica* E. At.? [Ref. x 5]. Rubbish heap at top of Banstead Down, Surrey, v.e. 17. All speeimens from same large plant.—J. E. Lousley. Material insufficient for aecurate determination.—C. E. Britton.*

Coronopus didymus Sm. Rubbish heaps, Hampton Court, Middlesex, Sept. 11, 1926. I have found it in flower and fruit at this locality during almost every month of the year.—J. E. Lousley.

Viola silvestris Lamarek, var. *punctata* Druee? Wray, near Reigate, Surrey, May 2 and April 2, 1926. [Ref. x. 36]. Veins

* Mr. Britton wishes it to be known that the determinations of *Capsella* and *Centaurea* apply only to the sheets he has seen.

of lower petals heavy and dark, but not quite extending to the edge. Spurs speckled, greenish, variable, but always intermediate in colour, being neither light nor dark. Some plants with lighter spurs. Most of the spurs furrowed. Cal. appendages broad and squarish. The April specimens seemed to agree with *punctata* fairly well, but a month later the plants got more robust, and changed their appearance considerably. I seem to find this intermediate between *silvestris* and *Riviniana* fairly frequently in Surrey. What is it?—J. E. Lousley. The above notes were written last May. Plants from this locality varied greatly, but they all appear to be intermediate between *silvestris* and *Riviniana*, mimic hybrids, mentioned by Mr. Britton in his notes in Journ. Bot. December, 1926.—J. E. Lousley.

It must clearly be understood that the names given to the pansies refer only to those sheets actually seen by me.—Eric Drabble.

V. agrestis Jord. ? [Ref. x. 39]. Field near Epsom Downs, Surrey, May 2, 1925.—J. E. Lousley. No; this is *V. ruralis* Jord.—E. Drabble.

V. agrestis Jord. [Ref. x. 79]. Field near Addington, Surrey, Sept. 18, 1926.—J. E. Lousley. This is an interesting plant. The specimen sent to me combines the spreading branches of *agrestis* with the general habit of *subtilis*. I have seen the plant from other localities, and intend to study it in cultivation this year.—E. Drabble.

V. segetalis Jord. Hall Thwaites, S. Cumberland, v.c. 70, Sept. 3, 1926.—W. H. Pearsall. Yes; I named this plant for Mr. Pearsall.—E. Drabble.

V. ——— Woods near Duddon Hall, S. Cumberland, v.c. 70, Oct. 1, 1926.—W. H. Pearsall. I cannot make this plant other than first year *lepida*.—E. Drabble.

V. ruralis Jord. ? [Ref. x. 41]. Field adjoining Crohamhurst, Surrey, v.c. 17, April 24, 1926.—J. E. Lousley. *V. ruralis* Jord. —E. Drabble.

V. ruralis Jord. ? [Ref. x. 38]. Field near Epsom Downs, Surrey, v.c. 17, May 2, 1926.—J. E. Lousley. *V. ruralis* Jord.—E. Drabble.

Dianthus Armeria L. Origin, Cadbury Hill, Yatton, N. Somerset, v.c. 6. ex Hort., July 1926.—Ida M. Roper.

D. gallicus Pers. [Ref. x. 10]. St. Ouen's Bay, Jersey, June 20, 1926.—J. E. Lousley and T. W. Attenborough. Only two sheets of this rarity were sent.

D. prolifer L. [Ref. x. 9]. St. Ouen's Bay, Jersey, June 20, 1926.—J. E. Lousley and T. W. Attenborough.

Tunica Saxifraga Scop. Tenby, Pembroke, Aug. 14, 1926.—Coll. J. E. Arnett. Comm. National Museum of Wales.

Silene nutans L. Llandudno, Carnarvon, May 29, 1926.—I. Helsby.

S. dubia Herbieh. [Ref. x. 69]. Shingle, Dungeness, E. Kent, v c. 15, June 23, 1925. See B.E.C. Rep. 1914. This species is so distinct from *nutans* that it can be distinguished from the latter at a considerable distance.—J. E. Lousley.

Arenaria serpyllifolia L., var. *macrocarpa* Lloyd [Ref. x. 1]. Towing-path by Hampton Court, Middlesex, v.c. 21, May 30, 1926. This seems an approach to *macrocarpa.* The leaves are very broad, the sepals strongly veined and the capsule large. But the sepals are distinctly glandular. When growing the plant had a very distinet appearanee.—J. E. Lousley. This is very unlike var. *macrocarpa* Lloyd (*Lloydii* Jord.), and appears to be type *serpyllifolia* L.—C. E. Salmon. Others agree with Mr. Salmon.

Sagina filicaulis Jord., det. C. E. Salmon [693]. Cornfield, E. of "Oakfield," St. Ippolyts, Herts., Oct. 5, 1926.—J. E. Little. Mr. Little sent this to me in a fresh condition, and I think it well represents Jordan's *filicaulis.* These *Saginas* often grow together, so I cannot speak with eertainty except as regards the one sheet before me.—C. E. Salmon. Dr. Drabble says these are not identical with Mr. Riddelsdell's gathering of 1924.

Spergularia marginata Kittel. var. *glandulosa* Druce. Harbour, Porlock Weir, W. Somerset, v.e. 5, Aug. 24, 1925. Forming a close turf together with *Armeria maritima,* which was loeally dominant. The turf ended abruptly in a little "eliff" about six inehes high; the rest of the harbour is mud, with a few *Salicornia* plants and a form of *Fucus vesiculosus* not permanently attaehed to the substratum. Smaller isolated pieees of turf, raised above the general level of the mud, and situated near the main mass, seem to indicate that the marsh is retrogressing, and that the turf is being cut away.—D. G. Catcheside.

Montia fontana L. var. *chondrosperma* Fenzl. [Ref. x. 32]. Burghfield Common, Berks., May 23, 1926.—J. E. Lousley. *M. fontana* L. var. *intermedia* Beeby.—C. E. Salmon.

Geranium pyrenaicum Burm. fil. Belvedere, W. Kent, v.e. 16, 1926.—St. John Marriott.

G. Endressi J. Gay. Garden weed at Westbury-on-Trym, near Bristol, July 19, 1926.—Jas. W. White.

G. molle L., ? var. *grandiflorum* Lange. Hedgerow above Lawrence Weston, West Gloucester, June 2, 1926.—Jas. W. White. I know nothing of Lange's variety, but var. *grandiflorum* Vis. which has flowers well over 10 mm. in diameter grows on Epsom Downs, Surrey. My specimen of Mr. White's plant has flowers barely 7 mm. across, and would be a very poor approach to this variety —J. E. Lousley. Can hardly be var. *grandiflorum* Lange, which has the petals twice as long as the sepals.—I. M. Roper.

Hypericum linariifolium Vahl. St. Catherine's Bay, Jersey, June 23, 1926.—J. E. Lousley. Is var. *approximatum* Rouy ap. Magn. vide Journ. Bot. LII, 330 (1914) and LIII, 170 (1915). —H. W. Pugsley.

Ulex europaeus L. Seedlings among brambles by Fourwents Pond, Holmwood Common, Surrey, Sept. 18, 1926.—E. C. Wallace.

Genista pilosa L. Perranporth, W. Cornwall, June 7, 1913. —Leg: C. C. Vigurs. Comm. F. Rilstone.

Medicago lupulina L., var. *Willdenowiana* Koch. Side of New Road near Cheam, Surrey. [Ref. 1207]. Oct. 7, 1926. Associated with *Polygonum Convolvulus* var. *subalatum*, etc. Forms occur on Banstead Downs with pods hairy when young, but glabrous when ripe; but specimens from this locality seem to retain their hairs when the pods are black.—E. C. Wallace. Correct, I. M. Roper.

M. lupulina L. var. *Willdenowiana* Koch. (1) White Hill, Hitchin, Herts., Sept. 8, 1926. (2) Chapmore End, Herts., Sept. 11, 1926.—J. E. Little. The erect glandular hairs tend to disappear on the mature pods, but are more easily seen on the green pods, and on the peduncles.—J. E. Little.

M. minima Desr. St. Ouen's Bay, Jersey, June 20, 1926.— J. E. Lousley and T. W. Attenborough.

Melilotus officinalis Lam. Waste ground E. of Gravesend, W. Kent, v.c. 16, July 31, 1926. Fruit, Oct. 10, 1926—I. A. Williams.

M. indica All. (fruits). Purwell Field, Hitchin, Herts., Aug. 20, 1926.—J. E. Little.

Trifolium subterraneum L. St. Catherine's Bay, Jersey. June 23, 1926.—J. E. Lousley.

T. Molinerii Balb. The Lizard, W. Cornwall, June, 1913.—C. C. Vigurs. Comm. F. Rilstone.

T. arvense L., with white flowers. Furze Hill, Hildersham, Cambridgeshire, July 8, 1926. This very pretty form was growing in large patches. Plants with typically-coloured flowers also grew on the hill.—I. A. Williams.

T. strictum L. The Lizard, W. Cornwall, June 22, 1913.—C. C. Vigurs. Comm. F. Rilstone. See Reg. 5 in future.

Trifolium ———. Erith, W. Kent, v.c. 16, 1926. St. John Marriott. Is *Trifolium hybridum* L. var. *phyllanthum* Seringe. This monstrous state has greener stipules and calyx-teeth, and less developed leaves in the flower-heads than in Miss Roper's specimens from Avonmouth Docks, sent to the Club 1920-21, or in a gathering of my own from Bristol, 1917.—H. S. Thompson. A monstrous state of *T. hybridum* L.—H. W. Pugsley.

Lotus hispidus Desf. Near Christchurch, Hants., July 30, 1926. These plants were growing at the edge of a piece of land which had been levelled for building. It is a considerable distance from the place where this species has been known for many years. Many of the plants had stems over 30 inches long and much branched, some of them measuring over 4 feet across. —L. B. Hall. A very remarkable growth.—H.S.T.

Vicia sylvatica L. (**1**) Thicket near Lydden, E. Kent, v.c. 15. June 20, 1925.—J. E. Lousley and John Jacob. (**2**) Near Dover, E. Kent, v.c. 15, July 1926.—J. Jacob.

V. lutea L. Shingle near Leree, Guernsey, June 15, 1926.—J. E. Lousley and M. A. McCrea.

V. sepium L. var. *ochroleuca* Bast. Peperharrow, Surrey, June 22, 1926.—R. J. Burdon.

V. angustifolia L. var. *Garlandii* Druce. [Ref. x. 13]. St. Ouen's Bay, Jersey, June 20, 1926.—J. E. Lousley and T. W. Attenborough. The two specimens sent me (no pods) do not differ from several gatherings of English and French *V. angustifolia* L. in my herbarium. Neither the size of the corolla nor the size and shape of the calyx is abnormal. If this is typical of the "beautiful form of the plant with very large flowers (which) is not uncommon," (Lester Garland, Flora of Jersey, p. 101), and of var. *Garlandii* G. C. Druce in Journ. Bot., 1907, p. 420,

I see nothing worthy of a varietal name in the Jersey vetch. The "bright rose-purple conspicuous standard" of this var. can be seen in many a large-flowered *angustifolia* in the south of England and in France, particularly when growing within maritime influence. The var. *Bobartii* often has larger flowers than those of these upright plants from Jersey, but the leaves and habit are not those of the plant we have known as var. *Bobartii* which Rouy places as his var. *typica* of *V. angustifolia* (Fl. France), v, 213). In its very narrow leaves *Bobartii* approximates to var. *uncinata* Desv., found in the Channel Isles, and "very common in Normandy" (Marquand, Fl. of Guernsey, 81). I have gathered *uncinata* in Provence, but this again was reduced to merely a form of *V. angustifolia* by Reynier (Bull. Soc. Bot. France, 1908, 590–4). For a further note by me on *V. angustifolia* forms see Report 1913–14 p. 438.—H. S. Thompson.

Lathyrus tuberosus L. Rough ground near wood, Ledbury, W. Glos., v.c. 34, Aug. 25, 1926.—W. A. Shoolbred. From what I know of this beautiful Pea on the Continent and of its occurrence in England I am inclined to agree with Mr. Miller Christy (Journ. Bot. 1910, p. 170), that it is not indigenous in Britain. Though found near Ledbury (Herefords.) it was apparently within the Glos. border.—H. S. Thompson.

L. sylvestris L. Lyme Regis, Dorset, 1926.—St. John Marriott.

L. sylvestris L. Chalky slope near Whitehill, Caterham, Surrey, July, 1924.—J. E. Lousley.

L. maritimus, Bigel. Shingle, Rifle Ranges, Hythe, Kent. I send this for the interest of the locality. The public are only allowed on these ranges on Sundays; perhaps that explains why this locality is, so far as I know, unpublished. The plant is much more abundant here than at Kingsdown, and I failed to find it at Dungeness.—J. E. Lousley.

Prunus insititia × *spinosa*. [673]. Riddy Lane, Hitchin, Herts., March 30, Aug. 9, Sept. 17, 1926.—J. E. Little. I agree to this. The petals are broader than pure *P. spinosa* usually is; the peduncles have a short pubescence, the leaves are broader than those of *P. spinosa*, and the flowers are contemporaneous with them.—J. Fraser.

Rubus integribasis P. J. Muell. (?) Stem arcuate; petals pink, oval-obovate, clawed; filaments pinkish, equal to the prominent pink-green styles; sepals patent in flower, and very loosely

reflexed to sub-patent in fruit. Arbrook Common, Surrey, Aug. 14, 1926.—D. G. Catcheside. *R. opacus* Focke, or else a hybrid of it.—H. J. Riddelsdell.

R. thyrsoideus Wimm. Arbrook Common, Surrey, Aug. 14, 1926.—D. G. Catcheside. *R. rusticanus* Merc.—H. J. Riddelsdell.

R. rusticanus Merc. [Ref. 24]. Stem not rooting; sepals continuously reflexed; petals pink; stamens slightly longer than the brownish styles. Banstead Downs, Surrey, Aug. 10, 1924.—E. C. Wallace. Correct.—H. J. Riddelsdell.

R. cenomanensis Sudre, var. *Bloxamianus* Colem. ex Purchas. Stem somewhat arcuate, prostrate, not rooting; petals rather narrow, pink; filaments white, somewhat green styles; sepals erect at first, spreading in flower, becoming reflexed before fall of petals, spreading in fruit. Hedge by a wood near Walton-on-the-Hill, Surrey, July 10, 1926.—D. G. Catcheside. Certainly *R. rudis* Whe. & Nees.—H. J. Riddelsdell.

R. plinthostylus Genev. Colan, near Newquay, W. Cornwall, July 13, 1907.—C. C. Vigurs. Comm. F. Rilstone. Yes.—H. J. Riddelsdell.

R. corylifolius Sm. ? [Ref. 11]. Banstead Heath, Surrey, v.c. 17, Aug. 29, 1926. Stem not rooting; tip of sepals dark brown, glabrous; petals white; white stamens ± longer than yellowish styles.—E. C. Wallace. A corylifolian hybrid, I expect.—H. J. Riddelsdell.

R. ——— [Ref. 13]. Stem not rooting; petals pale pink; greenish styles < pinkish stamens; slender spreading bush. Arbrook Common, Surrey, v.c. 17, Aug. 14, 1926.—E. C. Wallace. *R. opacus* Focke. Stem pieces lacking on some sheets.—H. J. Riddelsdell.

R. ——— [Ref. 2]. Stem not rooting; sepals reflexed during flowering; stamens longer than styles; filaments white, anthers darker; petals pinkish-white fading to white. Headley Heath, Surrey, v.c. 17, Aug. 8, 1926.—E. C. Wallace. This is the difficult plant put by Focke and Rogers to *R. argenteus* Whe. and Nees, f. *glandulosa*. I do not think it can go there; it is really near *Gelertii* Frider. This year I found it in great quantity on the top of the South Downs, both near Worthing and near Brighton, up to 800 feet. The supply of stem pieces is inadequate.—H. J. Riddelsdell.

R. ——— [Ref. 12]. Petals rich pinkish-red; styles green, shorter than yellowish-white stamens; stem not rooting. Arbrook

Common, Surrey, Aug. 14, 1926.—E. C. Wallace. *R. festivus* Muell. & Wirtg. Supply of stem pieces inadequate. There should be two at least to each sheet, taken from mid-stem. One or two sheets show only the lower parts of panicles.—H. J. Riddelsdell.

Geum rivale × *urbanum*. Brickyard Wood, Wallington, W. Norfolk, June 12, 1926.—J. E. Little.

Fragaria moschata Duchesne [Ref. 1020]. Hedgebank on the road from Shere Heath to Pitch Hill, Surrey, May 22, 1926.—E. C. Wallace.

Potentilla palustris Scop. Moira, Leicester, June 22, 1926.—A. R. Horwood. Comm. Nat. Mus. of Wales.

Alchemilla pastoralis Buser. Orig. Teesdale, Durham (A. J. Wilmott); Hort. Reigate, May 20, 1926. An account of this plant may be found in Journ. Bot. 1922, p. 164.—C. E. Salmon.

Poterium Polygamum Waldst. & Kit. var. *stenolophum* (Jord.) [Ref. x. 56]. Roadside, St. Margaret's Bay, E. Kent, v.c. 15, June 25, 1925.—J. E. Lousley.

Rosa arvensis Huds. var. White Down, Surrey, July 1926.—W. Biddiscombe. The collector does not say why he labels this "var." All roses vary so much that it would be justifiable to add "var." after the names of the majority. Here the clustered peduncles seem to indicate f. *major*, but these often occur in the type, while f. *major* usually has a much more ovoid fruit, but I see no great objection to the name. The most striking feature is the trespassing of the glandular setae on the peduncles to the base of the fruit in many cases, but I know of no name to cover such a form. This does not occur on all the sheets, showing the care that must be taken by the collector to send in a homogeneous series.—A. H. Wolley-Dod.

R. stylosa Desv. var. Near Compton, Surrey, Sept. 18, 1926.—W. Biddiscombe. This is fairly typical var. *systyla*, though some of the leaflets have become nearly glabrous from age. I have marked four pieces which belong to three different varieties in other species, and which should not be distributed.—A. H. Wolley-Dod.

R. stylosa near *chlorantha*. Dolley's Farm, Horsell, Woking, Surrey, Sept. 4, 1926.—W. Biddiscombe. This is not *chlorantha*, nor any variety of *R. stylosa*. The disc is too flat and the prickles too slender and straightish. It is one of the small-

leafleted varieties of *R. dumetorum*, best under var. *Gabrielis* R. Kell., though it is very unusual for that to have glabrous styles. The ovoid fruit takes it off var. *calophylla* Rouy.—A. H. Wolley-Dod.

R. canina L., group *Transitoriae*. Field hedge, Almondsbury, W. Gloster, v.c. 34, June 25 and Sept. 13, 1926.—Ida M. Roper. I should have felt inclined to have referred this to the *Dumales*, under var. *viridicata* Rouy. It is just a little too biserrate for the *Transitoriae*, none of the leaflets being simply so. The fruit also is not of the correct shape for var *insignis*, the only variety of that group to which it could be referred. I do not regard var. *viridicata* as at all a satisfactory variety, but if this be not var. *insignis* that is the only alternative.—A. H. Wolley-Dod.

R. dumetorum Thuill. var. *semiglabra* (Rip.). Horsell Common, Surrey, Sept. 18, 1926.—W. Biddiscombe. The two last sheets in this cover, of which I have marked the labels with an 'A,' may probably be f. *semiglabra*, but with remarkably long peduncles. The rest have their leaflets much too hairy. All these are pubescent on the lateral nerves as well as on the midribs, and most of them on the whole lower surface. I should call them f. *urbica*, but the styles are very thinly hispid, a character by which I used to segregate *R. trichoneura* Rip., but which I now regard as synonymous.—A. H. Wolley-Dod.

R. dumetorum Thuill. var. *incerta* Déségl. Field, Ursleigh Hill, Pensford, N. Somerset, June 22 and Sept. 24, 1926.—Ida M. Roper. The filaments of the styles of most of the specimens are glabrous, and the others are all but so, though the stigmas are papillose, so I think they can all be labelled f. *laevistyla* W.-Dod. There is a good deal of variation in the shape of the fruit from globose to ovoid, and the styles are variously exserted. The peduncles also are often more hispid than is usual. The colour of the flowers is difficult to judge from a dried specimen, but some at least of the specimens appear to have them bright rose, so that they would not have been referred to *R. leucochroa* by our former rhodologists, as most of our f. *laevistyla* has been, but I do not regard colour as of primary importance in most varieties.—A. H. Wolley-Dod.

R. micrantha Sm. var. *microcarpa* R. Kell. Lane near Albury Down, Surrey, Aug. 15, 1926.—W. Biddiscombe. I think not var. *microcarpa*. The fruit is narrowly ovoid-urceolate or ellipsoid-urceolate, not pyriform, there are no acicles under the

inflorescence, and the petioles and midribs are hardly shaggy. I think it is only rather small-fruited type.—A. H. Wolley-Dod.

R. micrantha, var. *microcarpa* but with clustered fruits, armed stems, and fruit more rounded. Merrow Down, Surrey, Aug. 15, 1926.—W. Biddiscombe. Only the rounded based fruits are any objection to the suggested name. It is very like the Albury Down specimens and has the same objections, besides having somewhat larger leaflets. Both are certainly near var. *microcarpa* R. Kell., but I hesitate to refer either to that variety, which is apparently very rare in Britain, in the absence of a closer agreement with the description.—A. H. Wolley-Dod.

R. micrantha Sm., var. *microcarpa* R. Kell. Buckland Hills, Surrey, July 10, 1926.—D. G. Catcheside. I do not think this is *microcarpa*. The fruit is certainly small, but the leaflets are too large and lack the villous pubescence of that variety. Only two or three specimens have some acicles under the inflorescence, which would bring them as near *sylvicola* as to *microcarpa*, but I do not think that even these individuals will do for either variety and would call them small-fruited type.—A. H. Wolley-Dod.

R. micrantha, near *septicola*. White Down, Surrey, July 28, 1926.—W. Biddiscombe. I should not separate this from type. The fruits are clearly ovoid, not roundish.—A. H. Wolley-Dod.

Pyrus Pyraster Boreau. Tall tree on the high ground of Thornbury Knap, W. Gloster. Flowers, April 29, 1924, leaves and fruit, June 24, 1926. But few fruits could be obtained, the poor crop being mainly inaccessible. This must represent the true wild stock of the British Pear—rarely met with save in aboriginal woodland. It corresponds with specimens from Contrexéville and the Haute Savoie. The var. *Déséglisei* differs in its smaller, rounder, and more cordate foliage and smaller fruit.—Jas. W. White.

Parnassia palustris L., var. *condensata* Travis and Wheldon. Birkdale, S. Lancs., v.c. 59. Aug. 23, 1924.—J. A. Wheldon; Comm. Nat. Mus. of Wales.

Tillaea muscosa L. Weed on garden path, Wallington Hall, W. Norfolk, v.c. 28, June 10, 1926. It was curious to find this on a garden path. I made enquiry, and went to the place from which gravel had been brought, but the plant did not occur there. The nearest wild station is on greensand about a mile away.—J. E. Little.

Callitriche obtusangula Le Gall. [Ref. x 72]. Ditch near Epsom Downs, Surrey, May 29, 1926.—J. E. Lousley. Correct. —A. Bennett.

Lythrum Hyssopifolia L. St. Catherine's Bay, Jersey, June 23, 1926.—J. E. Lousley.

Bupleurum rotundifolium L. Near High Down, Herts, Aug. 1926.—J. E. Little.

Carum Petroselinum Benth. et Hook. fil. Shingle at Leree, Guernsey, where it has been abundant and well established for many years. See Flora of Guernsey, p. 99. June 15, 1926.—J. E. Lousley and M. A. McCrea.

Sison Amomum L. (fruits). The Grennell, Sutton, Surrey, Oct., 1926.—E. C. Wallace.

Peucedanum officinale L. Abundant on cliffs at Tankerton, E. Kent, v.c. 15, Aug. 1, 1926.—J. E. Lousley.

Caucalis arvensis Huds. Cornfield, Oxhey, Watford, Herts.—I. Helsby.

Sambucus nigra L., var. *laciniata* Mill. Hedge near Gatton Park, Reigate, Surrey, May 2, 1926. Besides these laciniate leaves the bush bore normal and intermediate leaves.—J. G. Lousley. Yes; is it ever to be found far away from houses?—J. E. Little. I have never seen this as other than a cultivated plant.—E. Drabble.

Leycesteria formosa Wallich. North Hill, between Minehead and Greenaleigh, W. Somerset, v.c. 5, Aug. 26, 1925.—D. G. Catcheside. Wallich named this genus in honour of his friend Wm. Leycester, once Chief Judge at Bengal, and a patron of horticulture. *L. formosa* was introduced into England about 1824.—H. S. Thompson.

Galium boreale L. Stream-sides, Ben Lawers, Perthshire, v.c. 88, Aug 30, 1925.—J. L. O'Loughlin.

Galium aparine L. Hairy form. In a roadside swamp between Hatfield Broad Oak and Hatfield Heath, Essex, June 23, 1926. Very rank plants, copiously provided with white hairs. On looking through the sheets of *G. aparine* in British Museum Herbarium I could only find one other similar specimen. Presumably, therefore, this extreme hairiness is not very common.—I. A. Williams.

Valerianella olitoria Poll. [Ref. 1064]. Arable field to west of Banstead Downs, Surrey, June 27, 1926. An almost prostrate plant, and quite different in appearance from the *V. olitoria* that grows in the Dorking district. Known at Banstead for many decades, it does not seem to be common in Surrey. Also some packets of seeds.—E. C. Wallace. Yes.—J. E. Little. Yes; var. *lasiocarpa* Reichb. with pubescent fruit.—I. M. Roper.

V. olitoria Poll. Amongst damp herbage, Westcott, Surrey, June 12, 1926.—D. G. Catcheside.

V. dentata Poll. Fields below Denbies Drive, Dorking, near Westcott, Surrey [Ref. 1081], July 3, 1926.—E. C. Wallace.

Gnaphalium uliginosum L. Watford, Herts., Sept. 1926.—I. Helsby. Yes; not quite ripe enough to show the fruits, but I have never found the var. *pilulare* in Herts. The Hitchin district produced this year very large plants up to 18 in. high.—J. E. Little.

Inula crithmoïdes L. Hayling Island, Hampshire, Aug. 26, 1926.—I. A. Williams.

Matricaria inodora L., var. *salina* DC. Salt-marsh, Minehead, W. Somerset, Aug. 25, 1926.—D. G. Catcheside.

Galinsoga parviflora Cav. Waste ground at Eastfields, near Mitcham, Surrey, Oct. 1, 1926. This plant is so abundant in the fields of this district, where it has been known to my knowledge since 1915, that it has become an absolute pest.—J. E. Lousley.

Senecio viscosus Linn. [Ref. x. 50]. Towing-path near Richmond, Surrey, Aug. 9, 1924. Showing great variation in height and luxurianee.—J. E. Lousley.

S. Jacobæa L., var. *discoideus* Koch. Waste ground, Deramore Drive, Belfast, Co. Antrim, July 27, 1926. An inland form of the variety, differing from that of the exposed western coast merely in the way that most plants differ when growing in similar contrasted situations. *S. flosculosus* Jord. is synonymous. —Jas. W. White.

S. Cineraria DC. Shingle, Kingsdown, E. Kent, v.c. 15, June 25, 1924. Here *Cineraria* is only a casual, as also I have found it at several places round the coast recently. At Torquay, where it has been known for a large number of years, I saw it in 1922 well established over several miles of coast.—J. E. Lousley.

The notes on CENTAUREA *apply only to the sheets that have actually been seen by Mr. Britton, who writes that Mr. Lousley's specimens would have gained in interest had more discrimination been displayed in the selection, and more care bestowed in the drying.*

Centaurea obscura Jord. forma *elongata* ? [Ref. x. 91]. Miteham Common, Surrey, Sept. 23, 1926.—J. E. Lousley. *C. nemoralis* Jord., approaching var. *microptilon* C. E. B.; but it looks rather abnormal.—C. E. Britton.

C. surrejana C. E. Britton ? [Ref. x. 92/1]. Epsom Downs, Surrey, Aug. 26, 1926.—J. E. Lousley. *C. nemoralis* Jord. forma. —C. E. Britton.

C. nigra L., segregate ? Hedgebank, Shire Newton, Monmouth, v.c. 35, July 31, 1926. The plant seems to agree fairly well with *C. nigra* var. *Endressi* Hoehst. & Steudel in Rouy & Foue. Fl. de France; but I do not know what that might be in the new Lond. Cat.—W. A. Shoolbred. *C. obscura* Jord., f. *elongata*.—C. E. Britton.

Centaurea ——— [Ref. x. 64]. Hallelu Farm, Warlingham, Surrey, Oct. 7, 1925.—J. E. Lousley. *Centaurea pratensis* Thuill. —C. E. Britton.

Centaurea ——— [Ref. x. 65]. Near Warlingham, Surrey, Oct. 7, 1925.—J. E. Lousley. In very poor condition. Either *C. pratensis* Thuill. or *C. Jacea* L. sub.-sp. *C. jungens* Guyler. Both of these forms occur in the above district.—C. E. Britton.

Centaurea ——— [Ref. x. 94/6]. Banstead Downs, Surrey, Aug. 26, 1926. A very large branched plant.—J. E. Lousley. *C. nemoralis* Jord.—C. E. Britton.

Centaurea ——— [Ref. x. 95/7]. Banstead Downs, Surrey, Aug. 26, 1926.—J. E Lousley. *C. nemoralis* Jord.—C. E. Britton.

Centaurea ——— [Ref. x. 84/16]. Park Downs, near Chipstead, Surrey, Oct. 11, 1926.—J. E. Lousley. *C. nemoralis* Jord. —C. E. Britton.

Centaurea ——— [Ref. x. 81]. Bank by Ballard's Lane, near Croydon, Surrey, Oct. 8, 1926.—J. E. Lousley. *Centaurea nemoralis* Jord.—C. E. Britton.

Centaurea ——— [Ref. x. 82]. Epsom Downs, Surrey, Oct. 11, 1926.—J. E. Lousley. *C. nemoralis* Jord.—C. E. Britton.

C. microptilon C. E. Britton ? [Ref. x. 83 (14)]. Heath, near Woodcote Park, Epsom, Surrey, Oct. 11, 1926.—J. E. Lousley. *C. nemoralis* Jord. Not var. *microptilon*.—C. E. Britton.

C. nemoralis Jord. [Ref. x. 93/2]. Epsom Downs, Surrey, Aug. 26, 1926.—J. E. Lousley. Correct.—C. E. Britton.

C. aspera Linn. [Ref. x. 11]. St. Ouen's Bay, Jersey, June 20, 1926.—J. E. Lousley and T. W. Attenborough.

Crepis capillaris Wallr., var. *pinnatifida* Willd. Waste ground, Stoke Bishop, Bristol, W. Glou., v.c. 34, July 3, 1926.—Ida M. Roper.

Hieracium grandidens Dahlst. Bank by road between Trelleck and Llandego, Monmouth, v.c. 35, May 26, 1926.—W. A. Shoolbred.

H. praecox Sch. Bip. [419]. Railway bank near Chipstead, Surrey, June 23, 1922. Phyllaries incumbent; ligule tips glabrous; styles slightly livid.—H. W. Pugsley. This plant has been identified by Rev. J. Roffey with *H. praecox* var. *castanetorum*. Schultz. Bipontinus Cichoraceotheca, No. 22. The varietal name seems to be a *nomen nudum*. It grew in abundance near Chipstead in 1922, but only on the banks of the railway, where it appeared to have been recently introduced, probably during the great war. It seeds and spreads very rapidly in my garden. *H. praecox* is placed in the section *Oreadea* in the new London Catalogue, following the arrangement of Zahn; but after cultivating the Chipstead plant for four years I cannot agree to its position in that generic division. Its foliage-hairs at all times of the year are relatively soft and short, as in the *Vulgata*, and the clothing of its small heads resembles that of *H. serratifrons* Almq. and its allies, near which I think it should be placed. Gremli places the Swiss forms of *H. praecox*, which are much more Oreadean than our plant both in foliage and in flowers, among the *Vulgata* next to *H. murorum*.—H. W. Pugsley.

H. ———. Lurgashall, W. Sussex, Aug. 31, 1926. R. J. Burdon. The usual form of *H. boreale* Fr. seen in the south of England, formerly referred to var. *Hervieri* Arvet-Tonvet.—H. W. Pugsley.

Calluna vulgaris var. *incana* Reichb. Wisley Common, Surrey, v.c. 17 [Ref. 1204], Oct. 11, 1926. This variety prefers moist ground, and is more marked in such localities. These specimens are from ground which is submerged in winter.—E. C. Wallace.

Limonium reticulatum Mill. Stiffkey Marshes, Norfolk, July 29, 1926.—R. J. Burdon. Apparently now called *L. bellidifolium* Dum.—H.S.T.

L. binervosum C.E. Salm. Stiffkey Marshes, Norfolk, July 29, 1926.—R. J. Burdon.

Centunculus minimus L. Horsell Common, Surrey, Sept., 1926. —W. Biddiscombe.

Symphytum officinale L., var. *ochroleucum* DC. Damp way-side, Stanton Drew, N. Somerset, May 22, 1926.—Jas. W. White.

Lappula echinata Gilib. Waste ground, Splott, Cardiff, Glamorgan, coll: A. E. Wade, Sept., 1926. Comm. National Museum of Wales.

Anchusa sempervirens L. Humberstone, Leicester, v.c. 55a. coll: A. R. Horwood, June, 1916. Comm. National Museum Wales.

Myosotis collina Hoffm. (1). L.N.E.R., Wymondley Road, Hitchin, Herts., May 11, 1925.—J. E. Little. (2.) (Fruits). Wymondley Priory, Herts., June 18, 1925.—J. E. Little. Yes. A. E. Wade.

Lithospermum purpureo-coeruleum L. Cheddar Wood, N. Somerset, June 11, 1911.—H. W. Pugsley.

Echium plantagineum L. West Mount, Jersey, June 26, 1926. —J. E. Lousley.

Convolvulus arvensis L., var. *linearifolium* Choissy. Cadbury Ridge, Clevedon, N. Somerset, v.c. 6, Sept. 9, 1926.—Ida M. Roper.

Atropa Belladonna L. Trillis Wood, Sapperton, E. Gloster., v.c. 33, June 1, 1925.—Ida M. Roper.

Linaria minor Desf. Railway siding, Hallatrow, N. Somerset, Aug. 18, 1926. Differs from type in the colour of the flowers; the lower lip of the corolla is pure white instead of yellowish or yellow as given in descriptions, and the sepals longer than the capsule.—Ida M. Roper.

L. purpurea Mill. Railway bank, Kingsdown, near Deal, E. Kent, Aug. 31, 1925.—J. L. O'Loughlin.

L. repens Mill. Stony field out of cultivation several years, close to Buckland Lime Works, Surrey. [Ref. 1094]. July 10, 1926.—E. C. Wallace.

Veronica scutellata L., var. *hirsuta* Weber. Amongst *Juncus* in pond, Headley Heath, Surrey; also small form amongst *Littorella* on mud by pond.—D. G. Catcheside. Also July 1, 1926. [Ref. 1069].—E. C. Wallace. Yes; but is not var. *villosa* Schumach. the correct name?—E. Drabble.

Veronica aquatica (Bernh.). By pond, Matching Green, Essex, June 17, 1926. Appears to fit the description on p. 586 of the tenth edition of Babington's Manual. Flowers white suffused with pink. Plant reddish.—I. A. Williams. Yes; *i.e.* our common British plant. I am not sure that the capsule-characters given in B.E.C. Report (1911), part I., pp. 26-27, are quite right. Dr. Druce should see this plant.—E. Drabble.

Euphrasia gracilis Fr. [Ref. x. 63]. Chalky field near Fairchildes, Warlingham, Surrey, Aug. 23, 1925. There are specimens in the S. London Bot. Inst. Herbarium, collected by A. Bennett many years ago, which appear to be from the same locality.—J. E. Lousley and A. Beadell. *E. gracilis* Fries.—W. H. Pearsall.

E. gracilis Fr. [Ref. x. 77]. Field near Fairchildes, Warlingham, Surrey, Oct. 18, 1926.—J. E. Lousley. Badly mildewed, *E. gracilis*.—W. H. Pearsall.

E. nemorosa H. v. Mart. Near Llangstone, Monmouth, Aug. 1924.—A. E. Wade. Comm. Nat. Mus. of Wales. *E. nemorosa*, var. *ciliata* Drabble.—W. H. Pearsall.

E. brevipila Burnat et Gremli. Meadow, Pant-yr-eos, Henllys, Monmouth, July 31, 1924.—A. E. Wade. Comm. Nat. Mus. of Wales. My sheet shows five plants of typical *E. brevipila* and one of *E. Rostkoviana*.—W. H. Pearsall. The rest all seem to be typical *E. brevipila*.—D. G. Catcheside.

E. Rostkoviana Hayne. Meadows, near Cwrt Henllys, Monmouth, July 31, 1926.—A. E. Wade. Comm. Nat. Mus. of Wales. Correctly named.—W. H. Pearsall.

E. Rostkoviana Hayne. By Fourwents Pond, Holmwood Common, Surrey, Sept. 19, 1926.—E. C. Wallace. Yes.—W. H. Pearsall.

E. Rostkoviana Hayne. [Ref. No. 648]. Yelverton, S. Devon, Sept. 9, 1925. Leg. M. C. Williams. Comm. J. E Little. Not *E. Rostkoviana*, but *E. Vigursii* Davey. Flowers strongly marked with the characteristic purplish-violet or dark blue of the latter species. The glandular hairs are unusually numerous and very

unequal in length. Many are relatively short and straight, others long and flexuous. Bucknall (*Brit. Euphr.* p. 16) says, "glandular hairs very numerous on leaves, braets and ealyx," but it is well to remember that this species may be eglandular. On a sheet sent me by Dr. Druce in 1918 from the original station five plants out of nine are quite eglandular, the other four being copiously supplied with unequal glandular hairs. The bracts of these Yelverton plants are more or less rotund, and in some eases even slightly broader than long. All possess short ovate teeth.—W. H. Pearsall. Surely "dark blue" is hardly the eolour of the markings of *E. Vigursii*, of which I have seen plenty in Cornwall. —H. S. Thompson.

E. Kerneri Wettst. [Ref. 1153]. Buekland Hills, Surrey, Oct. 3, 1925.—E. C. Wallaee. *E. Kerneri* Wettst., with extremely small leaves and numerous filiform branehes. The stems and branches give evidence of having been repeatedly bitten off by grazing animals.—W. H. Pearsall.

Euphrasia ———. Lane through Boundless Copse, near Hindhead, Surrey, Aug. 15, 1926.—I. A. Williams. *E. Kerneri* Wettst. My sheet contains only two plants, both updrawn, tall and slender, with long filiform branches from the middle of the stem upwards. Both show the very long and narrow *salisburgensis*-like cauline leaves whieh often characterise this speeies. Those which subtend the larger branehes are deflexed—as is frequently the case—a eharaeter by no means confined to *E. nemorosa*.—W. H. Pearsall.

Euphrasia ———. Grassy roadside by High Woods, Blaekmore, Essex, July 11, 1926. All the plants were small, small flowered, and hairy. Is this *E. curta* (Wettst.) ?—I. A. Williams. Very young *E. Rostkoviana*—speeimens very mouldy.—W. H. Pearsall.

Euphrasia ———. Chinnor Hill, Oxfordshire, Sept. 11, 1926.—I. A. Williams. *E. gracilis*.—W. H. Pearsall.

Euphrasia ———. Downs near Pateham, Sussex, Aug. 24, 1926.—J. L. O'Loughlin. "An ordinary form of *E. nemorosa*."—H. W. Pugsley *in litt.*

Bartsia viscosa L. Grande Mare, Guernsey, June 15, 1926.—J. E. Lousley.

Rhinanthus major Ehrh. ? (a) *platypterus* Fr. Sandhills between Deal and Sandwieh, E. Kent, v.e. 15, June, 1925. [Ref. 62]. —J. E. Lousley. This appears somewhat intermediate between

R. major and *R. minor*; the flowers are small and the corolla appendages rather short for the former. I hope to submit the plant to a Continental expert. On the whole, the specimens agree fairly satisfactorily with the name Mr. Lousley has given it.—C. E. Salmon.

Orobanche Picridis F. Schultz [Ref. x. 51]. Sandhills near Berrow, Somerset, v.c. 6, Aug. 3, 1923.—J. E. Lousley (1 sheet). Possibly correct, but it may be only a form of *O. minor*. I saw *O. Picridis* at Berrow many years ago (on *Crepis virens*), but, unfortunately, only in a dried-up condition. When fresh its colour is characteristic. Vide Journ. Bot. LXIII, 18 (1926).—H. W. Pugsley.

O. minor Sm. On *Vicia lutea* at Leree, Guernsey, June 15, 1926, Although *O. minor* is found on many of the Leguminosae, the present host is, I believe, very unusual.—J. E. Lousley. Yes; very interesting.—H.S.T.

O. amethystea Thuill. [Ref. x 18]. Plemont, Jersey, June 17, 1926.—J. E. Lousley and T. W. Attenborough. Is *O. minor* Sutton. Vide Journ. Bot. LXIII., 18 (1926).—H. W. Pugsley.

Mentha longifolia Huds.? var. *nemorosa* Willd. Marsh, near Clevedon, N. Somerset, Aug. 29, 1926. The leaves of this plant are "green pubescent above, slightly tomentose beneath" (Bab.); but not "blanchâtres en dessous" as demanded by Boreau. Possibly nearer the type.—Jas. W. White. Correct.—A. Bennett. The leaves are on the small side for the var. *nemorosa* Willd., but they are broad for their actual length. The inflorescence is also stouter than that of good *M. longifolia* Huds. The var. *nemorosa* is more common than the type. I believe it is the hybrid *M. longifolia* × *rotundifolia*, and hybrids are variable. I agree with the name.—J. Fraser.

M. crispa Hook. Watergate, near Newquay, Cornwall, v.c. 1, Oct. 18, 1913.—C. C. Vigurs; Comm. F. Rilstone. Not *M. crispa* of Linn., Hooker, nor Bentham, but one of the forms of the hybrid *M. rotundifolia* × *viridis*, which is the parentage of *M. crispa*. I have four forms of the hybrid, and can match this one from Swanage. It has the foxtail inflorescence, and pale flowers of *M. rotundifolia*, but the subglabrous character and scent of *M. viridis*.—J. Fraser. I suppose by this, Dr. Vigurs means *M. viridis* L., var. *crispa* L.—A. Bennett.

M. viridis L. Bootle, Lancs., v.c. 59, Aug. 21, 1924.—J. A. Wheldon; Comm. Nat. Mus. of Wales. Correct.—A. Bennett.

It is the hybrid *M. rotundifolia* × *viridis*. The broad leaves, cordate at base, and netted above with sunk venation take after *M. rotundifolia*. Their subglabrous character and the slender inflorescence, as well as scent, are characters of *M. viridis*.—J. Fraser.

M. aquatica L. Coarse shaggy form. Marshy ground by W. Looe River, Sowden's Bridge, Cornwall, v.c. 2, Oct. 30, 1926.—F. Rilstone. Is *M. aquatica* L., var. *acuta* Briq. The variety is widely distributed and very variable in the amount of hairiness. It grows 2½—6 ft. high. Leaves ovate, more or less acute, and the principal ones slightly cuneate at base, never cordate.—J. Fraser. *M. aquatica* f. *hirsuta*.—A. Bennett.

M. aquatica L. Slender subglabrous form. Locality and date as last.—F. Rilstone. Yes; *M. aquatica* L. var. *acuta*, Briq., and practically that figured and described by Sole as *M. aquatica major*. It grows 3—6 ft. high, and varies greatly in hairiness, being often more glabrous than this in water and in shade.—J. Fraser. Var. *subglabra* Baker.—A. Bennett.

M. aquatica L. var. *subglabra* Baker. In shade under alders, Frensham Great Pond, Surrey, Aug. 22, 1926.—D. G. Catcheside. Correct.—A. Bennett. Yes; I would so name it by the Lond. Cat. method. This is the most frequently subglabrous of the varieties. It is what Briquet names *M. aquatica* L., var. *acuta* Briq., but there are hairy forms of it also.—J. Fraser.

M. aquatica × *arvensis* (*M. rivalis* Wats.). Cateott Drove, Shapwick Moor, N. Somerset, v.c. 6, Aug. 25, 1926.—I. M. Roper. Correct.—A. Bennett. The calyx-teeth are not long enough to come under this heading. It is *M. arvensis* L., var. *austriaca* Jacq. The calyx teeth are long for *arvensis*, but there are others with long teeth . . . . and I admit they are puzzling. The variety *austriaca* is widely distributed.—J. Fraser.

M. arvensis L. Stream-side below Grabhurst, Minehead, Somerset, v.c. 5, Aug. 27, 1925.—D. G. Catcheside. A stream-side form of the type, not one of the subglabrous named forms. —A. Bennett. The calyx teeth are too long for *arvensis*. This is *M. verticillata* L., var. *rivalis* Briq. By Lond. Cat. this is *M. aquatica* × *arvensis* (*sativa* L.; *rivalis* Wats.).—J. Fraser.

Mentha ———. Damp ground by West Looe River, Sowden's Bridge, E. Cornwall, v.c. 2, Oct. 30, 1926.—F. Rilstone. By Lond. Cat. this is *M. longifolia* Huds., var. *nemorosa* Willd. Briquet calls it a variety of the hybrid *M. longifolia* × *rotundifolia*,

It is far more common in Britain than *longifolia*, and is very variable. It may be recognised by its short, oblong leaves becoming shorter and more ovate at the top of the stems.—J. Fraser. *M. pubescens* And. fil. (*M. hircina* Sole). For many years *M. pubescens* Willd. was in British books. Willdenow's Mints were lent me from Berlin, and there is no *pubescens* among them!—A. Bennett.

M. arvensis L., var. *cuneifolia* Lej. et Court. Cult. Kew, from Thames Banks, Hampton Court, Middlesex. This is allied to var. *Allioni* and var. *praecox*, but quite distinct from either. The leaves are lanceolate-elliptic, attenuate to both ends and of a beautiful grass green. I regret the leaves were suddenly spoiled by caterpillars.—J. Fraser.

M. Pulegium L. Pond near Chobham, Surrey, Aug. 22, 1923. [x. 53].—J. E. Lousley. Yes; coming under the "variety" *erecta*.—C. E. Salmon.

Thymus glaber Miller. Gravelly bank on Walton Heath, near Kingswood Church, Surrey [Ref. 1155], Aug. 29, 1926.—E. C. Wallace. Probably Ronniger would so name it, but I find it difficult to separate from *T. ovatus* Miller. The latter name has been discarded by Ronniger in favour of *T. pulegioides* L.—A. B. Jackson. Mr. A. B. Jackson makes *T. glaber* Mill. his *T. ovatus* Mill., sub.-var. *glaber* A.B.J., having a capitate inflorescence. The present plant, in which the whorls are separated, comes under his sub.-var. *subcitratus* = *T. subcitratus* Schreber.—J. E. Little.

T. Serpyllum Linn., var. *silvicola* Wimm. & Graeb. Near Grand Stand, Epsom Downs, Surrey [Ref. x 86], Aug. 28, 1926.—J. E. Lousley. Material too poor for definite determination.—A. B. Jackson.

Salvia verticillata Linn. Woodcote Park, Epsom, Surrey, Aug. 28, 1925. Growing near a copse out on the golf course, it has been known here for nearly ten years. Probably introduced in grass seed.—E. C. Wallace.

Stachys palustris Linn. [Ref. x 54]. In the middle of a dry, clay, clover field about two miles from the nearest stream or water, by Burghfield Church, Berks, Oct. 3, 1923. This plant puzzles me. I can make it only *S. palustris*, which the seeds match perfectly.—J. Lousley. Long observation tells me there is nothing very unusual about the above habitat. It often grows in quite dry places, *e.g.* on the top of a dry bank near Porlock. As usual, one finds in White's Flora of Bristol the

most accurate and comprehensive description of habitat; in this case, "and neglected arable land" is given.—H. S. Thompson.

Stachys palustris × *silvatica* (*S. ambigua* Sm.) Austria Inferior. —Dr. K. Rechinger. Yes; *S. palustris* × *silvatica*, nearer to the first. Can we identify all the forms of this variable hybrid with *S. ambigua* Sm. ?—J. E. Little. It seems to me that if two plants give rise to hybrids, ranging from nearly one parent to nearly the other, they should all have a separate name, as each has a different genetical composition.—D. G. Catcheside.

Teucrium Botrys Linn. Field near Crundale, E. Kent, v.c. 15, July, 1926. Leg. J. Jacob. This year the plant was less abundant than during 1925, and the specimens I received were not so branched or robust.—Comm. J. E. Lousley.

Ajuga Chamaepitys Schreb. Field near Chipstead, Surrey, June 23, 1923. Very scrappy, but I was anxious not to disturb the roots, and hence only took small pieces.—J. E. Lousley. Mr. Little wrote to me, saying that he thought the specimens showed perennial characters, whereas the plants of arable land in his district were distinctly annual. The sheet I kept contains pieces showing signs of what might be perennating buds, and the only root on the sheet shows a single, indistinct annual ring in transverse section. The specimens are too incomplete to be conclusive, but they seem to be perennial. Hooker gives the plant as annual, Hayward (Druce) as a perennial, and Watson as a colonist. It seems to me probable that the length of life of the plant is considerably influenced by situation; plants on undisturbed ground in the Box Hill district are certainly perennial, and early in the year show young shoots springing from old roots, while plants on arable ground, according to Mr. Little, are as definitely annual.—D. G. Catcheside. Keller and Schinz in Flore de la Suisse say annual (in the ordinary sense), and also "annuelle hivernante, germant en automne, fleurissant et fructifiant au printemps de l'année suivante."—H.S.T.

Plantago Coronopus L. var. Pebble beach, Watermouth Bay, N. Devon, v.c. 4, Aug. 11, 1924.—D. G. Catcheside. These agree with specimens collected on a gravelly path on Quantoek, W. Somerset, and on a cart-track on (limestone) Mendip, N. Somerset; both of which I put under var. *pygmaea* Lange, which can be regarded as little more than a starved ecological state of this very polymorphic species.—H. S. Thompson. "Is not this 'var.' *pygmaea* Lange ? I think it is merely a state."—E. Drabble *in litt.* to J. E. Little.

Herniaria glabra L. [Ref. x 21]. Cobe Common, Guernsey, June 13, 1926.—J. E. Lousley. Is *H. ciliata* Bab., the only species known in Guernsey. Vide Jour. Bot. LII., 330 (1914]. —H. W. Pugsley.

Corrigiola littoralis L. Slapton Lea, S. Devon, Sept. 18, 1907. —H. W. Pugsley.

Amaranthus Thunbergii det. G. C. Druce. Abbey Wood, W. Kent, v.c. 16, 1926.—St. John Marriott.

A. chlorostachys Willd. Waste ground, Avonmouth Dock, W. Glos., v.c. 34, Aug. 19, 1926.—Ida M. Roper. On further examination I think it should be labelled *A. retroflexus* L., and Mr. J. W. White agrees with me. The two species are similar in appearance, but the long bracts seem conclusive.—I. M. Roper.

Chenopodium opulifolium Schrad ? One big plant, two feet or more high ; waste ground between Greenwich and Woolwich, Kent, Oct. 20, 1926. Even at this late date very little fruit was ripe.—I. A. Williams.

C. rubrum L. *forma.* Muddy edges of a pond on Peasemarsh near Guildford, Surrey, Sept. 18, 1926.—I. A. Williams. Is this small form or variety named ? It was growing very plentifully on mud which is under water in winter, but dry in summer. Typical *rubrum* is common in other parts of Peasemarsh and its neighbourhood, and seemed this year to have ripened its fruit before the small mud-form. Dunn does not record *C. rubrum* for south-west Surrey in his Flora of the district.— I. A. Williams. I have not seen this gathering, but from the data I take it to be var. *pseudo-botryoides* Wats.—H. S. Thompson.

C. rubrum L. Near Pinner Wood Farm, Middlesex, Oct. 2, 1926.—I. Helsby.

Beta trigyna Wahlb. Teste W. R. Sherrin. Waste ground, Erith, W. Kent, v.c. 16, June 1926.—St. John Marriott. A rare alien from the Near East of Europe, only recorded in England at long intervals. Some plants flourished on made ground near Bristol from 1908 to 1914, but failed to become established.— I. M. Roper.

Polygonum Convolvulus L., var. *subalatum* Lej. & Court. [Ref. 1170]. Roadside near Cheam, Surrey, Sept. 18, 1926. This seems to be adventive in the Sutton neighbourhood, because I had never observed it until the new bye-pass roads were made in the district. It has since appeared in great abundance

along them in company with "Goosefoots," etc.—E. C. Wallace. Yes; I suppose this is var. *subalatum* Lej. & Court., as the perianth segments in the fruit are slightly winged on the keel; they are certainly not obtusely keeled. In my experience this is the commoner form.—E. Drabble.

P. dumetorum L. [Ref. 1138]. Hedgebank, south end of Thursley Common, Surrey, Aug. 22, 1926.—E. C. Wallace. I agree, but I have never seen *dumetorum* before with such small fruit and such weakly-developed perianth-wings. On looking through a series it is clear that in all *dumetorum* plants a *few* of the perianths are practically wingless; but the nut is unmistakeable.—C. E. Salmon.

P. Persicaria L., var. *elatum* Gren. & Godr. Farmyard, Middle Town, Clevedon, N. Somerset, v.c. 6, Sept. 9, 1926.—Ida M. Roper. In var. *agreste* (as in *elatum*) the young spikes are tapered, so this is no criterion, and the leaves may be broader or narrower. But the mature spikes of *agreste* are in general stouter and shorter, as these are. Miss Roper's ochreæ are loose, whereas for *elatum* they should be close.—J. E. Little.

P. Hydropiper L., var. *densiflorum* A. Br. [Ref. No. 2988]. Brox, Surrey, Oct. 2, 1926. Leg. C. E. Britton. Comm. S. L. Bot. Inst. See note by C. E. Britton in Journ. Bot., Dec. 1926, p. 328, on *P. Hydropiper* var. *densiflorum* A. Br.—W. R. Sherrin.

P. minus Huds. [Ref. 76]. Margin of pond in Hampton Court Park, Middlesex, Sept. 11, 1926.—J. E. Lousley.

Mercurialis perennis L. ♂ *forma.* Near Thursley, Surrey, April 22, 1926. This form with ovate leaves and rather short petioles (but not *M. ovata* Sternb. et Hoppe) was growing in a patch about three or four feet across. It looked quite different from other plants of the same species growing plentifully near it. Apart from their shape, the leaves struck me as being rather more glaucous than usual on the undersides.—I. A. Williams. I also fail to see anything unusual in this plant.—E. Drabble.

Urtica dioica L., var. *angustifolia* Wimm. & Graeb. Shady spot by stream, Arbrook Common, Surrey, Aug. 14, 1926.—D. G. Catcheside. Yes; I think it is var. *angustifolia* W. & G.—E. Drabble.

Ulmus campestris var. *suberosa* Wahlenberg. Laxenburg, Austria Inferior, April 14, 1922.—Dr. K. Rechinger. Although no foliage is sent I have very little doubt that this is the tree we call here *U. nitens* var. *suberosa* Henry (*U. campestris* var. *suberosa*

Wahlenberg). There used to be a tree of it in Kew Gardens, wrongly labelled *U. alata*, which is an American species. Henry mentions trees at Hatfield, and says that it appears to be a common variety in the forests of Central Europe.—A. B. Jackson. The elm sent is *U. nitens* Moench, var. *suberosa* (*U. foliacea* Gilbert, var. *suberosa*). It is not *U. campestris*, if by that name is meant the "English Elm" of the Thames and Severn valleys. It is hopeless to attempt to bring correctness into names of elms, as Continental and British authors are not agreed.—A. Henry.

U. stricta Lindley. Tyntesfield Park, Wraxall, N. Somerset, v.c. 6, fls. Mar. 3, fr. April 13, ls. July 26, 1926.—Ida M. Roper. Correct, I believe.—A. B. Jackson.

Salix alba L. ? var. *angustata* Anderss. Dunwen, Belfast, Co. Antrim, Ireland, 1926. This narrow-leaved form agrees in some respects with Andersson's description of the variety, "folia angustata, latitudine quadruplo-sextuplo longiore, apice longissime cuspidata," but Mr. Fraser, to whom I submitted examples two years ago, hesitated to so name it. He thought it more in the direction of *S. cærulea* Sm., matching well a male plant from Surrey, and pointed out that the leaves of my willow are not "plerumque obsolete serrulata." These leaf-variations, though conspicuous enough, are probably unworthy of much consideration.—Jas. W. White. Conforms fairly closely with *S. alba* L., var. *angustata* Andersson, of Sweden.—J. Fraser.

S. alba L. var. *vitellina* (L) ♀. By stream, Lambriggan, Perranzabuloe, W. Cornwall, v.c. 1. Catkins, May 24, 1926; leaves, Aug. 1926. Taken, I believe, from the tree recorded as var. *vitellina* in Davey's Flora of Cornwall, p. 413.—F. Rilstone. I can match the size and shape of the leaves of this with *S. alba* var. *vitellina* (L.) taken from an old tree, but in no other respect does it fit into the variety. The leaves and twigs are too silky, and the bark is not yellow nor red. The catkins are too short for the var. *vitellina* even on an old tree; but the most decisive test of all is that the bracts of the catkins are ovate, obtuse, and shorter than the ovaries, whereas the bracts of the var. *vitellina* should be linear-lanceolate, very acute, and reach to the base of the short style. I would name the specimens *S. alba* L. var. *angustata* Andersson.—J. Fraser. The colour of the branches and twigs does not support the varietal attribution. I would suggest *S. alba* L. type.—J. E. Little.

S. aurita × *caprea* (*S. capreola* J. Kern). [453]. Oxted chalk pits, Oxted, Surrey, April 5, August 2, 1925.—J. Fraser. (2)

[Ref. No. 523]. Whyteleafe, Caterham Valley, Surrey. Leaves Sept. 14, 1924, catkins, April 19, 1925. *S. caprea* rather asserts itself in the large crenatures of some of the leaves. The finer serratures of most of the leaves, the partial glabrescence of the younger leaves, the small catkins, intermediate bracts, late date of flowering, and the twiggy habit of the bush, about five feet high, suggest *S. aurita*.—J. Fraser.

S. cinerea × *viminalis* f. *ferruginea* (G. And.) [Ref. No. 495]. Tilburstow Hill, Godstone, Surrey. Leaves, July 6, 1924, catkins, March 29, 1926. The short pubescence on the under-surface of the leaves, and the rusty or ferruginous colour when getting old, are my chief reasons for considering *S. cinerea* as one of the parents.—J. Fraser.

S. Anderssoniana × *phylicifolia* ♂ [624]. Eelmire, near Jervaulx, N. Riding, Yorks., June 2, 1925. Alt. circ. 400 feet. —J. E. Little. Very close to *S. Anderssoniana* Sm. (*nigricans* Sm.); but since many of the leaves have entire points, and there is considerable polish on the one-year-old twigs, there is evidence that it is the hybrid *S. Anderssoniana* × *phylicifolia*. It is difficult to get the two species pure when both grow together.—J. Fraser.

S. Anderssoniana × *phylicifolia* ♂ [625]. Sowden Beck, E. Witton, N. Riding, Yorks., June 3, 1925. Leg. J. E. Little. Leaves, Oct. 18, 1926. Leg. Rev. G. Garrod. Yes; the green colour of the dried leaves, with entire points in many cases, and the amount of polish on the one-year's shoots, indicate relations to *S. phylicifolia*. The partial polish of the one-year-old shoots, and the quantity of pubescence on both sides of the young leaves and shoots indicate *S. Anderssoniana*.—J. Fraser. By the kindness of the Rev. Canon G. Garrod, vicar of E. Witton, who gathered the leaves from the same two bushes, I have been enabled to complete the set.—J. E. Little.

Populus canescens Sm. [672]. The Willows, Hitchin, Herts., v.c. 20, March 20, 1926.—W. J. Housden. Comm. J. E. Little. A belated catkin enabled me to ascertain that the colour of the stigmas was light purple. Moss (Camb. Brit. Flora) states that the colour of the stigmas in *P. canescens* is yellow, and I believe he would regard the purple stigmas as evidence of hybridity with *P. tremula*. But Babington makes the stigmas of *P. canescens* purple. Such enlarged figures of the stigmas as I have seen are in general very inaccurate, being drawn not from fresh but from shrivelled specimens.—J. E. Little.

P. canescens Sm. [696]. The Willows, Hitchin, Herts., v.c. 20, Sept. 26, 1926.—W. J. Housden. Comm. J. E. Little. Leaves from sucker shoots. Mr. Housden was unable to procure leaves from the same tree as that [672] from which the flowers were obtained, so they are sent under separate covers.—J. E. Little.

Populus alba × *tremula* (*P. canescens* Sm.) Wien, Prater, 1892.—Dr. K. Rechinger. After a careful examination, comparison with my British specimens and consultation with Mr. A. B. Jackson, we came to the conclusion that this is a state of *P. canescens* Sm. We should have liked to see a shoot gathered in May or June, and also catkins that would have been conclusive. We cannot see *P. alba* or *P. tremula* in it. Dr. C. E. Moss in the Cambridge Flora says: "Some continental botanists regard what is apparently *P. canescens* as a hybrid of *P. alba* and *P. tremula*. There seems, however, very little real evidence to support this supposition. *P. alba* and *P. tremula* are very distinct species, and occupy very different climatic regions."—J. Fraser. The poplar is not ordinary *P. canescens* Smith, and would probably be correctly named *P. canescens* × *P. tremula*. I consider *P. canescens* Smith to be a good species.—A. Henry. Vide K. Rechinger, "Ueber den Polymorphismus der Laubblätter von *Populus canescens* Sm." in Verhandlungen der zoolog.-botan. Gesellschaft, Wien (1899).

Ceratophyllum submersum L. with ripe fruits. Congresbury, N. Somerset, Sept. 28, 1926. First seen Sept. 4, in a pond 40 yards long and communicating with R. Yeo by a ditch.—H. S. Thompson. This ancient pond is choked with the plant, and it may be the station near Congresbury from which Dillenius recorded it in 1726. Some of the loose fruits are smooth and much smaller, but probably they belong to plants of the same species and not to *C. cristatum* Spruce (see note by A. Bennett in W.B.E.C. Report, 1901-2, p. 21). Mrs. Sandwith, of Clifton, is investigating this Congresbury plant and others, and preparing a paper on *Ceratophyllum* for Trans. Bristol Nat. Soc.—H. S. Thompson.

Epipactis purpurata Sm. [I. Ref. x. 60]. Near Warlingham, Surrey, Aug. 23, 1925. [II. Ref. x. 61]. Near Godstone, Surrey, July 12, 1925. I send this to show how large this species sometimes grows. The plant in question, which was originally shown to me by Mr. C. B. Tahourdin, put up 34 of these large flower-stems in 1924 and 38 the following year.—J. E. Lousley.

Orchis praetermissa Druce. [Ref. x. 59]. Teste C. B. Tahourdin. Home "Ponds," near Deal, E. Kent, growing with *maculata. elodes, incarnata*, and hybrids, June 1926.—J. E. Lousley.

Orchis elodes Gris. Bog, Broadmoor Valley, Leith Hill, Surrey [Ref. 1062], June 12, 1926.—E. C. Wallace. This species is abundant in wet peat bogs in Surrey and Sussex. I have rarely seen two specimens in which the lip-markings or the colouring were identical. In a field near it grows with *O maculata* L. and *Listera ovata* on arid soil. Nearly every blossom had a little fly in the top of the spur, but when the flies were removed they were dead, or else intoxicated with nectar.—E. C. Wallace.

Ophrys fuciflora Reich. Many places on the hills behind Folkestone, E. Kent, v.c., 15, June 21, 1925.—J. E. Lousley.

O. apifera Huds. (seeds). Barton Hills, Beds., Aug. 27, 1926.—J. E. Little.

Polygonatum multiflorum Allioni. Burghfield, Deans Copse. Berks., v.c., 22, May 23, 1926. Solomon's Seal is very abundant in the woods and copses in this district.—J. E. Lousley.

Allium Scorodoprasum L. [418]. Shore of Ullswater, Westmoreland, Aug. 1, 1926.—H. W. Pugsley.

Lilium Martagon L. Mickleham, Surrey, June 26, 1911.—H. W. Pugsley. Only three specimens sent.

Juncus trifidus L. Bare slopes of Ben Lawers, at about 3000 ft., Perthshire, v.c. 88, Aug. 31, 1925.—J. L. O'Loughlin.

Juncus tenuis Willd. Farningham, W. Kent, v.c. 16, Aug., 1926.—St. John Marriott.

Luzula Forsteri DC. × *pilosa* Willd. (*L. Borreri* Bromf.). Knowle, Mayfield, E. Sussex, May 16, 1926.—A. H. Wolley-Dod.

L. Forsteri DC. × *L. pilosa* Willd. Wood, near Fernhurst, Sussex, May 8, 1926. *Forsteri* was frequent in this wood, but *pilosa* rather scarce. The hybrid was a much taller plant than either of the parents.—I. A. Williams.

Sparganium ramosum Curt., var. *microcarpum* (Neum.). Pond near Chiswick's Farm, Stow Bardolph, W. Norfolk, v.c. 28, Oct. 15, 1925.—J. E. Little.

Potamogeton Zizii M. et K. Pl. Austr. Stiria: Aussen See; alt. ca. 700 m., Aug. 18, 1923.—K. Rechinger. = *P. angustifolius* Bercht. et Presl.—A. Bennett.

P. pectinatus L. Austria Infer., Marmswörth Fiegelwasser, June 21, 1922.—K. Reehinger. Correct.—A. Bennett.

Scirpus americanus Pers. (*S. pungens* Vahl.) [Ref. x. 12]. St. Ouen's Pond, Jersey, June 20, 1926.—J. E. Lousley and T. W. Attenborough.

Carex diandra Schrank. Blo' Norton Fen, W. Norfolk, v.c. 28, June 11, 1926.—J. E. Little and Rev. E. M. Reynolds. Blo' Norton = Blow Norton = Bel'eau Norton = "Norton-on-the-fairwater" (Mawer and Stenton, "Introd. to the Study of English Place-Names," 1924, I, pt. 1, 122).—J. E. Little. Correct.—A. Bennett. Yes; charaeteristic.—C. E. Salmon.

C. contigua Hoppe [Ref. x. 3]. Towing-path by Hampton Court, Middlesex, May 19, 1926.—J. E. Lousley. I think this is correct, but it is a mistake to gather *Carices* so young.—C. E. Salmon. Probably eorrect, but poor speeimen-—A. Bennett.

C. axillaris Good. Near Popping House, Moreton, Essex, June 12, 1926. Growing with *C. vulpina*. *C. remota* was plentiful about fifty yards away. This hybrid seems not uncommon in the distriet round Ongar.—I. A. Williams. I should so name it.—C. E. Salmon.

C. Hudsonii Ar. Benn. Fruits. Wretton Fen, W. Norfolk, v.c. 28, June 7, 1926. An unrecorded station.—J. E. Little.

C. rariflora Sm. Canloehan Glen, Forfar, July 13, 1910.—H. W. Pugsley.

C. lepidocarpa Tausch. or *œdocarpa* And. Sterile, ? × *fulva* Host. Wretton Fen, W. Norfolk, June 6, 1926. Legit J. E. Little, dried by H. S. Thompson. (Sent with a sheet of *C. œdocarpa* from the same Fen for comparison.) An interesting sedge whieh probably Mr. Little ean name better than any of us. He knows with what speeies this was assoeiated. It does not match very well specimens of *lepidocarpa* × *fulva* or *œdocarpa* × *fulva* in my herbarium. Did *flava* type grow thereabouts? One of the eulms on my sheet was fertile, and eontained exeellent nuts of *lepidocarpa* type.—C. E. Salmon.

C. Œderi Retz. [649]. Wretton Fen, W. Norfolk, Aug. 1925. Growing with abundant var. *œdocarpa* and apparent intermediates [650, sent to B.E.C.].—J. E. Little. I believe correet.—C. E. Salmon.

Panicum Crus-galli L. Waste ground, Splott, Cardiff, Glamorgan. Grain-sifting alien. Coll. A. E. Wade, Sept. 7, 1926.

Comm. Nat. Mus. of Wales. Yes ; the var. *longiaristatum* Lejeune, I think.—E. Drabble.

Setaria viridis Beauv. Allotment ground, Sutton, Surrey, Aug. 26, 1925. A single large plant.—E. C. Wallace. Correct. —A. Bennett.

Leersia oryzoides Sw. Brockham, Surrey. Coll. J. Linnell, Aug. 1859. For details respecting the exceptionally exserted panicles of this gathering see Rep. B.E.C. 1925, p. 1069.—C. E. Salmon.

Phalaris canariensis L. In considerable quantity in a roadside ditch, where earth had been tipped to make up the path, Hindhead, Surrey, Aug. 25, 1926.—I. A. Williams.

Agrostis tenuis Sibth., var. *aristata* Parn. W. Kent, v.c. 16, 1926.—St. John Marriott.

Calamagrostis epigeios Koch. Seaton, S. Devon, v.c. 3, 1926. —St. John Marriott. Correct.—A. Bennett.

C. canescens Gmel. Burgh St. Margaret, Norfolk, July 27, 1926.—R. J. Burdon. Correct.—A. Bennett. Yes.—E. Drabble.

Apera spica-venti Beauv. [Ref. 1139]. Cornfield near Ripley, Surrey, Aug. 1, 1926. Growing in sandy soil amongst oats.— E. C. Wallace. Yes.—J. E. Little.

Gastridium lendigerum Gaud. Loamy clay near Black Down, W. Sussex, v.c. 13, July 3, 1925.—J. E. Little.

Aira caryophyllea L. & var. *aggregata* (Tim.). Sewage Farm, Woking, Surrey, June 1926.—W. Biddiscombe.

Avena fatua L., var. Waste ground, Mitcham Common, Surrey, Aug. 21, 1926.—D. G. Catcheside.

Arrhenatherum elatius M. & K. var. *bulbosum* Presl. North Chapel, W. Sussex, v.c. 13, June 30, 1925.—J. E. Little and R. J. Burdon. Usually written *A. tuberosum* Gilib. The tuberous swellings are not very pronounced on my specimen.— W. O. Howarth.

Koeleria vallesiana Aseh. et Graeb. (1) Purn Hill, Bleadon, N. Somerset, June 10, 1924. (2) Brean Down, N. Somerset, June 14, 1924.—H. S. Thompson.

K. gracilis Pers. Lower Hazel, Alveston, W. Gloster, v.c. 34, June 14, 1926.—Ida M. Roper. Correct.—A. Bennett.

K. gracilis Pers., var. *britannica* Domin. (1) Brean Down, N. Somerset, June 14, 1924. (2) Kingdown Craggs, Mendip, N. Somerset, June 27, 1924.—H. S. Thompson. Correct.—A. Bennett. (3) Rocks above Bridge Valley Road, Clifton, W. Glos., June 20, 1924. Two specimens of No. 3 have a long interrupted spike. In all these gatherings the rachis and some of the spikelets are more or less hirsute.—H. S. Thompson.

Briza minor L. (1) Cornfield, near Hinton Admiral, Hants., July 15, 1926. (2) Parkstone, Dorset, July 21, 1926.—L. B. Hall.

Eragrostis cilianensis (All.) Vigw. Lut. Waste ground, Splott, Cardiff, Glamorgan. Grain-sifting alien, Sept. 8, 1926.—A. E. Wade. Comm. Nat. Mus. of Wales. *Eragrostis* is a large cosmopolitan, but mostly sub-tropical, genus allied to *Poa*. None of the 150 species are native in Britain; but the genus is represented in Europe by about six elegant species, two of which, closely allied to this one, reach almost to Paris. "Schinz and Keller" give *E. cilianensis* (All.) Vigw. Lutati as growing on uncultivated ground about Genève, Lausanne, etc, on the Lake of Geneva; very rare, and only casual elsewhere in Switzerland.—H. S. Thompson.

Poa nemoralis L. var. Harestone Valley, Caterham, Surrey. [Ref. 1090]. July 4, 1926.—E. C. Wallace. I take this to be var. *vulgaris* of Ascherson and Graebner, Syn. Mitteleur. Fl., p. 408.—W. O. Howarth.

Glyceria plicata Fr. Plumstead, W. Kent, v.c. 16, 1926.—St. John Marriott.

Festuca bromoides L., small form. Gravelly banks, Mitcham Common, Surrey, July 6, 1926.—D. G. Catcheside. This is *F. Myuros* L. (*F. bromoides* Savi).—W. O. Howarth. Yes; merely a *state*.—E. Drabble.

F. ambigua Le Gall. Beechamwell Warren, W. Norfolk, v.c. 28, June 10, 1926. Growing intermixed with *Festuca bromoides* L., on sand.—J. E. Little. Correct, but very poor specimens.—A. Bennett. I agree; the specimens show well the characteristic colouring of this species.—C. E. Salmon.

F. ovina L. Mitcham Common, Surrey, July, 1926.—D. G. Catcheside. Is *F. capillata* Lam.—W. O. Howarth. This is *F. capillata* Lam. The pales are not curved, the leaf has five bundles, and the sub-epidermal sclerenchyma is continuous.—E. Drabble.

F. rubra (*genuina*) *dumetorum.* Littleboro, E. Kent, v.c. 15, 1925.—St. John Marriott. The name given is that of my paper in Journ. Linn. Soc. Bot., vol. XLVI, p. 318, 1923. It corresponds to *F. rubra* var. *genuina*, subvar. *barbata* Hack.—W. O. Howarth.

Bromus maximus Desf. Erith, W. Kent, v.c. 16, June, 1926. —St. John Marriott. Correct.—A. Bennett.

B. madritensis L., var. *rigidus* Bab. Lane near Leree, Guernsey. [Ref. x 26.] June 15, 1926.—J. E. Lousley and M. A. McCrea. Correct.—A. Bennett.

B. racemosus L. Near Burgh Heath, Surrey, June 26, 1926.—W. R. Sherrin. Correct.—A. Bennett. I agree.—W. O. Howarth. My single specimen has a loose compound panicle with the lower branches reaching half its length. I should name it *B. commutatus* Schrad. = *B. pratensis* Ehrh.—I. M. Roper.

Bromus ———. Amongst rubble on site of camp in Woodcote Park, Epsom, Surrey. [Ref. 1119]. July 24, 1926.—M. Bell and E. C. Wallace. Is *B. racemosus* L.—W. O. Howarth.

B. arvensis L. Waste ground near the Mill House, on Mitcham Common, Surrey. [Ref. 1056]. June 26, 1926.—E. C. Wallace. Is also, in my opinion, *B. racemosus* L.—W. O. Howarth.

B. unioloides H.B.K. Erith, W. Kent, v.c. 16, 1926. Alien. —St. J. Marriott.

Lolium perenne L., f. *cristatum.* Field near Burgh Heath, Surrey. [Ref. 1040]. June 19, 1925. A form similar to this appeared in my garden two years ago, and has remained constant ever since. In these specimens it seems that the larger the spike is the more pronounced is the aberration.—E. C. Wallace. This name should be ascribed to Döll. This state of *L. perenne* is, however, purely a teratological one.—W. O. Howarth.

Asplenium lanceolatum Huds. Near Newlyn, W. Cornwall, Jan. 14, 1925.—Miss M. Brown. Comm. J. E. Little. Rather scrappy, but may be useful to some who have not a specimen.—J.E.L.

Polystichum Lonchitis Roth. Amongst rocks on Ben Lawers, Perthshire, v.c. 88, Sept. 2, 1925.—J. L. O'Loughlin.

Equisetum sylvaticum L., var. *capillare* (Hoffm.). [Ref. 1126]. By Fourwents Pond on Holmwood Common, Surrey, Sept. 9, 1926. Very abundant in this locality, where it grows amongst

a tangled undergrowth of brambles, etc. I have never yet observed fruiting spikes at any time of the year.—E. C. Wallace.

E. palustre L., var. *polystachium* Vill. Wet meadow by R. Wey, Eashing, Surrey, Aug., 1926. In some quantity and growing with the type.—I. A. Williams.

E. limosum L., var. *fluviatile* L. Pond near Epsom, Surrey. [Ref. x 48]. June 7, 1925.—J. E. Lousley.

Chara hispida L. [Ref. x 46]. Ditches, Ham "Ponds," near Deal, Kent, v.c. 15, June 1925.—J. E. Lousley. Yes.—J. Groves.

C. vulgaris L. Pond, Folkestone Warren, Kent, v.c. 15, June, 1925. [Ref. x 47].—J. E. Lousley. A form of *C. hispida* L.—J. Groves.

C. vulgaris L. [Ref. x 89]. Pool on Quenvais, Jersey, June 20, 1926.—J. E. Lousley. Yes.—J. Groves.

Chara crinita Wallr., f. *microsperma elongata* Syden. Hungaria: Comitad. Pest. Gubaaspusta, pr. Kossuthfalva. Mai. Leg. Filarsky. Ex. hb. Dr. K. Rechinger, Wien. A particularly interesting contribution; the specimen sent to me consisting of examples of the male as well as the female plant. The male has apparently a very restricted distribution in the East of Europe, whereas the female occurs in scattered localities over most of Europe, in a band across Asia, in North Africa, and in North America. The male plant is not likely to have been overlooked by collectors, the large brightly coloured antheridia being so much more conspicuous than the oogonia. In England and elsewhere the female produces well-developed oospores, which germinate freely in the absence of the male plant. The name of *C. canescens* Loisel (1810) antedates that of *C. crinita*, Wallr. (1815).—J. Groves.

Nitella flexilis Agardh. Pond in Ashbridge Park, Herts., Feb. 26, 1926.—I do not know if it is possible to identify this plant in this early state.—I. A. Williams. *N. opaca* or *N. flexilis*, but too immature for determination —J. Groves.

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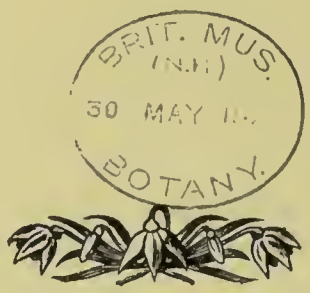

Vol. III., No. 11.

THE FORTY-FOURTH ANNUAL REPORT OF THE WATSON Botanical Exchange Club

1927—28.

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THE WATSON
Botanical Exchange Club

REPORT FOR 1927—28

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The total number of sheets sent for distribution this year is somewhat below normal. This, no doubt, is largely due to the damp conditions under which drying had to be carried out, and the early drought and subsequent flooding to which aquatics were subjected. Under the circumstances it is gratifying to see that several of the largest contributors managed to keep their figures and quality high. On the whole the condition of the plants submitted was exceptionally good.

Most of the critical groups were well represented, with the exception of Rosa. The Referee for Rubus asks me to point out that notes should be made on the living bush in accordance with the instructions given by Rogers in the Introduction to his Handbook, and sent in with the specimens. Care should also be taken to include in each sheet a representative panicle and adequate supplies of stem pieces. I would remind members that critical gatherings

are more advantageous than mere rarities, in that most public and private herbaria are in need of them, and as a rule fifteen or more sheets may be taken without the slightest harm to the plants involved. This applies especially to Rubus, Rosa, Salix, and Populus—certain Hieracia must not be over collected.

The greatest care should be taken to see that *all* gatherings are homogeneous. Two gatherings this year sent by experienced collectors contained in one case three species, and in the other two species and their hybrid. Other contributions were also mixed. Salix trees should be carefully noted or marked, and composite sheets of male and female flowers from different trees should never be sent. This year whole gatherings of *all* the critical plants were first sent to the Referees to be examined for homogeneity, and on their return single sheets were sent to other authorities for their opinions. This added considerably to the expense of Distribution, but it succeeded in finding several mixed gatherings, and members will know that the actual sheet they receive has actually been seen by one or other of the critics.

VERY FEW MEMBERS OBSERVED ALL THE RULES IN SENDING IN THEIR PLANTS, BUT THERE IS LITTLE OBJECT IN AGAIN ENUMERATING THE BREACHES WHICH ARE ANNUALLY POINTED OUT BY THE DISTRIBUTORS. THEIR WORK IS HOWEVER VERY GREATLY INCREASED BY FAILURE TO LIST THE PLANTS, TO SEND SPARE LABELS ENCLOSED TOGETHER IN AN ENVELOPE, AND TO USE SMALLER SHEETS OF PAPER.

Forty-three parcels were sent to contributing members, Kew, the British Museum, Cambridge, and several non-contributing members. I regret that owing to the small amount of material available and the fact that most gatheriings were small, many of the return parcels were not as large as one would have wished.

Our very best thanks are due to the Club Referees and Messrs. E. G. Baker, A. Bennett, C. E. Britton, Dr. E. Drabble, J. Fraser, Jas. Groves, Prof. A. Henry, W. O. Howarth, A. B. Jackson, J. E. Little, W. H. Pearsall, H. S. Thompson, A. E. Wade, J. W. White, Lt.-Col. Wolley-Dod and others for kindly supplying notes and opinions.

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UPPER TEESDALE.

Some fifty years ago it was suggested that here was no district in the British Isles which contained so many rarities to the acre as the valley of the Upper Tees. Though such a statement may not be quite correct, there can be no doubt that this area abounds in good things. At least three plants found in Upper Teesdale are found no where else in the British Isles, while two others are only to be seen elsewhere on Ben Lawers. I found about 200 plants which might fairly be classed as uncommon during the first fortnight of June, 1927. The four photographs attached, which show interesting localities within easy distance of the Langdon Beck Hotel, are as follows :—

(1) The Top of Widdy Bank Fell. Much of the fell country is covered with deep Sphagnum bog embedded in which logs of birch and other trees may be found—remains of the woodland which once covered the higher parts of our northern hills. In places, however, rocks and soil are still to be seen, particularly on the tops of the fells and in the valleys. Such a spot is shown in No. 1. The tufts consist of *Kobresia caricina*, *Juncus triglumis*, *Thalictrum alpinum*, *Carex pulicaris*, and in one certain similar locality *Arenaria uliginosa*. *Listera cordata* occurs in the open ground close to the *Calluna* banks, and *Eriophorum vaginatum* in the damper more boggy parts.

(2) A Sugar Limestone Hillock on Cronkley Fell. The sugar limestone is aptly named, and consists of small crystalline fragments of limestone denuded away from the underlying rocks. It occurs in a limited area on Cronkley Fell, and is the home of many rarities. *Helianthemum canum* var. *vineale* occurs in fair plenty in its only British station on some of these hillocks. I was unable to find the hybrid, although a small form of *H. Chamaecistus* occurs with it. *Dryas octopetala* grows here, but rarely flowers, while not far away may be found *Polygala amarella*.

(3) The Winch Bridge is in the valley of the Tees some 600 feet nearer sea level than the tops of Cronkley and Widdy Bank Fells, and of course the vegetation is of a totally different type, though scarcely less interesting. A small variety of *Sotidago Virgaurea* occurs on the rocks. *Sorbus rupicola* is abundant overhanging the river. *Antennaria dioica* is fairly plentiful, while in the wooded parts *Melampyrum sylvaticum* and *M. pratense* var. *hians* may be found. On

the river banks are *Equisetum pratense* and *variegatum*, and farther down the stream a *Thalictrum* which is thought to be *majus*, but which Mr. Arthur Bennett hesitates to so name it.

(4) Holwick Scar. A fine display of tufts of *Cryptogramme crispa* may be seen in the photo in the rock crevices on the left.

In conclusion I would appeal to members and others, visiting Teesdale not to collect certain rarities, notably *Arenaria uliginosa* and *Thlaspi alpestre*, in any but very small quantity. Mr. Foggitt informs me that the first has become annually rarer since he first observed it in 1897. It will probably become extinct shortly, and certainly cannot stand collection for the Exchange Clubs as was done three years back. There are plenty of interesting Teesdale plants which occur in the greatest abundance and which may be collected with impunity, so there is no excuse for taking plants we can ill afford to lose.

J. E. Lousley.

To Mr. J. E. Lousley we are greatly indebted for the energetic and efficient way in which he managed the Distribution, which he succeeded in accomplishing in good time notwithstanding illness and attention to his usual duties. He is again about the largest contributor of specimens, and we have to thank him for the loan of four little blocks to illustrate his article on the flora of Upper Teesdale. He also wrote some useful notes on his own and other plants.

Dr. Rechinger has again sent us a large and interesting consignment of Austrian specimens; and we share the Distributor's regret that he was unable to send to Vienna a really adequate parcel in exchange.

We must thank Mr. Little for his continued active and helpful interest in our affairs, and not least for making abstracts (correlated with our reports) from a long communication he received from Dr. Karl Rechinger on Salices sent to the Club in recent years by several members.

I am asked to draw the attention of Referees and members to the fact that Messrs. Little and Lousley have the same initials (J.E.L.), for this has several times resulted in confusion and misquotation.

It is a significant and deplorable fact that the two last Distributors, among the youngest of our members, should

have had to complain so markedly, but with ample justification, of the disregard of the Regulations and the untidy and sometimes illegible labels and notes by not a few of our members and helpers ; and also of the too large untidy sheets of newspaper adopted by several. As Secretary and Editor of the Report I feel at last constrained to ask how do some of our kind friends expect a compositor to decipher the miserable hieroglyphics on some of the labels and notes which come to the Distributor and then to myself? It is difficult enough for a botanist to read some of these. If certain members would endeavour to neatly write, or type, *one* spare label (" or an equivalent ") for each set of plants, *in the form and order in which for many years such entries have appeared in the Reports*, many hours of work would be spared each Spring.

Corrections to the Last Report.

P. 374.—*Viola agrestis* Jord. Ref. X79, near Addington. Dr. E. Drabble writes to Mr. Lousley that his specimens " may now definitely be called *agrestis*."

P. 374.—*V. agrestis* Jord. Ref. X 39, near Epsom Downs. For 1925 *read* 1926.

P. 378.—*Lathyrus tuberosus*. For Ledbury *read* Sedbury. " About three miles from Chepstow on the Glos. side of the Wye." W. A. Shoolbred.

P. 380.—*Rosa arvensis* var. White Down, Surrey, 1926; W. Biddiscombe. Col. Wolley-Dod reports that Keller writes of this: *R. arvensis* Huds. v. *typica* f. *subbibracteata* Braun proxima. Receptacula nunc ± ovoidea nunc subglobosa.

P. 384.—*Gnaphalium uliginosum*. Mr. Little wrote, too late for the last Report, that although var. *pilulare* has been superseded in Lond. Cat. by var. *lasiocarpum* Ledeb., he thinks it possible our plant may rather be var. *pseudo-pilulare* Scholz, of Asch. and Graebner.

P. 386.—*Hieracium praecox* [419]. For var. *castanetorum*. Schultz. Bipontinus *read* var. *castanetorum* Schultz—Bipontinus.

P. 390.—*Orobanche Picridis*. For I saw *O. Picridis read* I saw this plant

P. 392.—*Mentha Pulegium*. For Chobham *read* Chelsham.

P. 394, l. 1.—For Cobe *read* Cobo.

P. 399, l. 2.—For Home *read* Ham.

P. 407.—Mr. Hall's address: For "Lingfield" *read* "Lingdene."

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P. 354, l. 8.—For immersed *read* universal.

It is with great regret that we record the death of three of our members, viz. Mr. St. John Marriott, a keen field naturalist especially interested in bryophytes, who died at a comparatively early age from the shock of an operation on October 7; of our Honorary Member and old friend of the Club, the Rev. E. F. Linton; and of Mr. W. A. Shoolbred, M.R.C.S. (1852-1928), who joined the Club in 1921 and had been for many years a great friend of the late E. S. Marshall, with whom he made numerous botanical excursions in Scotland and in Ireland.

We also regret the death last November of Mr. C. L. Palmer of Cambridge, who had for many years printed our Reports. In June, 1927, his printing business was incorporated with that of Messrs. Severs (Prop. Mr. P. A. Parfitt) of 7, Sidney Street, Cambridge, who have printed the present Report.

REVD. EDWARD F. LINTON, M.A.

Edward Francis Linton, who died at Southbourne, Hants., 9th January, 1928, was born at Diddington Vicarage, Huntingdon, March 16th, 1848, and educated at Repton School and University College, Oxford.

In 1878 he accepted the living of Sprowston, near Norwich, where he lived until 1888, and it was there that he developed his love of botany and geology, and began cultivating British plants in his garden. At "Crymlyn," Bournemouth, he grew many kinds of *Hieracia* and later of Willows. Getting acquainted with the late W. Moyle Rogers he became specially interested in *Rubi*. In conjunction with Rogers, Revd. R. P. Murray, and Revd. W. R. Linton, he brought out a *Set of British Rubi* (1892-96) in 134 Nos., and, with his brother's help, this was followed by a *Set of British Willows* (112 Nos.). His Monograph on the British Willows appeared as a Supplement to the *Journal of Botany*, 1913. There was also a *Set of British Hawkweeds* in 160 numbers. These sets were gladly taken up, both at home and abroad, and may

be found in most of our great public and a few private herbaria. In 1900 his useful Flora of Bournemouth, including the Isle of Purbeck, was published.

Though a considerable writer on botanical subjects, chiefly in the *Journal of Botany*, his first botanical notes did not appear until 1884; and he did not join the Linnean Society until 1914, and remained a Fellow for a few years only.

But during a large part of his life Mr. Linton was an active and generous supporter of the two British Exchange Clubs, and especially of the Watson Club. He and his brother were original members of this Club in 1884. In the 4th Report (1888) we find "*Rubus Lintoni* Focke, Sprowston, Norfolk, July 26th, 1887.—J. D. Gray. This is the same as what passed before under the names *R. lucens* and *R. loetus* Linton. These names, however, being already in use, had to give way to that which Dr. Focke recommended . . . E. F. Linton." He was for many years, until 1916, a very regular contributor of beautifully dried specimens to this Club, and in 1904 became one of the Referees until 1922 when he and Mr. Arthur Bennett were made the first Honorary Members.

In 1920, on retiring from Edmondsham Rectory in Dorset, Linton's British Herbarium was sent to the British Museum and his foreign plants went to Cambridge. In the *Proc. Bournemouth Nat. Sci. Soc.* (1922-23) is an account of the presentation to Mr. Linton of the Gold Medal, and a summary of his activities by Sir Daniel Morris.

Frequent visits were made to Scotland, Wales and Ireland. He was usually accompanied by his brother, but not infrequently by the Rev. E. S. Marshall, Preby. H. E. Fox, or Mr. F. J. Hanbury. "Linton was a strong walker, and a quick and accurate observer. He was conscientious, painstaking, and exact in all his work," says Mr. Hanbury.

Mr. Linton married twice: his second wife, two sons and three daughters survive him. He was buried at the beautiful cemetery at Boscombe.

Some of these facts have been borrowed from the obituary notice by Mr. F. J. Hanbury in the *Journal of Botany*, March, 1928, where is a full bibliography compiled by Mr. J. Ardagh.

H. S. Thompson,
Hon. Sec.

April, 1928

Salices.—By the kindness of Dr. K. Rechinger (Vienna), we have received determinations of a number of sheets of

willows sent to the Watson Club in recent years by various contributors. The determinations are by Dr. Rudolf Görz, of Brandenburg, and Herr K. H. Rechinger (filius), and in some cases differ from those of British salicologists. They regard *S. atrocinerea* Brotero as distinct from *S. cinerea* L, and consider that in England, as also in the Western half of France (cf. Guinier in Bull. Soc. Bot. France, 58, 1911, pp. ix-xx), the former is at least in part represented, and takes a share in the formation of the *viminalis* hybrids with the group *capreae*.

E. F. Linton (Journ. Bot. 1913, Suppl. 33) makes *S. dasyclados* Wimm. synonymous with *S. acuminata* Sm. (non Mill.) : and (ibid 53) *S. atrocinerea* Brot. synonymous with *S. cinerea* L.

Cf. a specimen in Hb. Mus. Brit., Toepffer Sal. Exsicc., No. 352, *Salix atrocinerea* Brot. Fl. Lus. I (1804) 31, of the male tree ; with several synonyms, and a reference to Guinier.

(3) 1924. 307, l. 15, and 1923. 261, l. 41.
Salix fragilis × *pentandra* ? ♂ [556] Det. E. F. Linton.
S. alba × *pentandra*. Det. J. Fraser and W. Watson, and Kew.
S. alba × *fragilis* × *pentandra*. K. H. Rechinger, R. Görz.
Obs. The Rev. E. F. Linton said he would not be surprised if it contained *S. alba* as well as *S. fragilis*.

(4) 1924. 307, l. 9.
S. fragilis L. ♀ [605]. Agreed, E. F. Linton, J. Fraser.
S. alba × *fragilis* : K. H. R., *S. alba* × *fragilis* f. *excelsior* Host. R. Görz.

(5) 1924. 206, l. 35. and B.E.C.R. 1925. 1063, l. 14.
S. fragilis L. ♂ [592].
S. fragilis × *triandra*. J. Fraser.
S. alba × *fragilis*. K. H. Rechinger.
S. alba × *fragilis* f. *excelsior*. R. Görz.

(6) 1921. 180. l. 37.
S. alba var. *coerulea* (Sm.) ♂ [Ref. No. now added, 524].
S. alba × *fragilis* f. *palustris* Host. ad. f. *mediantem* Toepf. R. G.
**Obs.*—Nervaturae foliorum grossiores quam in *S. alba*. R.G.

Obs. Prof. A. Henry considered that *S. alba* var. *coerulea* was a first cross of *S. alba* with *S. fragilis*, but nearer the former.

(16) 1923. *And* B.E.C.R. 1921. 577, l. 43.
1923. 256 l.1.
S. caprea × *viminalis* ♀ [Ref. No. now added, 521].
S. cinerea × *viminalis* J. Fraser. B.E.C.R. 1921.
S. caprea (× *cinerea*) × *viminalis*. R. Görz.

(18) 1924. 310. l.19.
S. ferruginea G. Anderss.
S. atrocinerea × *viminalis*. K.H.R. and R. Görz.

(19) 1921. 182, l. 41.
S. *cinerea* × *viminalis* ♂ [Ref. No., now added, 510].
S. aurita × *viminalis*. R. Görz.

(24) 1923. 265, l. 37.
S. cinerea × *viminalis* ♂ [539].
S. acuminata × *rugosa* = *S. atrocinerea* × *cinerea* × *dasyclados* × *viminalis*. R. Görz.

(25) 1917. 76, l. 1.
S. aurita L. Yes : E. F. Linton.
Folia S. aurita L. Flores ♀ *S. cinerea* vel *atrocinerea* (× *aurita*) – ♂ *S. aurita* L. R. Görz.

(27) 1914. 509, l. 12.
S. cinerea l. f. *aquatica*.
S. atrocinerea Brot. K.H.R. and R. Görz.

(29) 1914. 509, l. 17.
S. nigricans Sm. *S. cinerea* . E. F. Linton.
S. atrocinerea × *nigricans* ? K. H. Rechinger.
S. atrocinerea Brot. R. Görz.

(30) 1922. 226, l. 9.
S. cinerea L. ?
S. atrocinerea Brot. K. H. Rechinger and R. Görz.

J. E. Little.

Since the above was abstracted Mr. Little sent to Dr. Görz several Willows including a characteristic *S. cinerea* from a set distributed to the B.E.C. 1921 ; for Dr. Görz had been inclined to deny the occurrence of true *S. cinerea* in this country, and thought all our specimens he had seen were *S. atrocinerea.* A reply came : " From the sheet you have kindly sent me there appears to be no doubt that true *S. cinerea* is native in England."

Thalictram majus Crantz. [Y81]. Tees-side, below Winch Bridge, Teesdale, N.W. Yorks., July, 1927.—J. E. Lousley. The specimens are hardly sufficient to decide what it may be ; but it certainly is not *majus* of Crantz. This has far more diffuse flowering stems, and the leafage much larger. I hesitate to name it, but it is much like what we used to call *T. collinum.*—A. Bennett. As a large, riverside plant with spreading panicle and long peduncles, this falls under *T. majus* Crantz, but as pointed out by Mr. Wilmott in 1925, it is not possible at present to classify accurately the variable and ill-defined forms of this polymorphic group which occur in Britain.—H. W. Pugsley.

Ranunculus trichophyllus Chaix [718]. Water-hole on Down, Pegsdon, Beds., June 14, 1927.—J. E. Little. A slender plant with rather long internodes. The leaves when taken out of water are slightly collapsing, or fairly rigid, ± hairy, light green in colour, with rather short capillary segments. No floating leaves. Peduncles about equalling leaves, curved, not tapered. Receptacle ovate, hardly globular : not truly conical. Carpels very hairy. Flowers small, petals not contiguous.—J. E. Little. Yes, *R. trichophyllus.* The carpels are very numerous, moderately hairy and quite mature. The submerged leaves are rather weaker and therefore more collapsing than usual, but much of the latter quality is due to slime.—W. H. Pearsall. Yes, *R. trichophyllus.*—J. Groves.

Ranunculus [*trichopyllus* Chaix]. Austria, Burgenland, Weiden, May 1, 1926.—Dr. Rechinger. Very carefully prepared examples. These are, however, *R. Baudotii* Godron. The flowers are much too large and the peduncles much too long for *R. trichophyllus,* although the submerged leaves might

easily be mistaken for those of that species. The broad and flaccid stem and the young heads of very numerous and glabrous carpels are further diagnostic characters of *R. Baudotii*.—W. H. Pearsall.

Ranunculus heterophyllus Weber. Dunton Green brickyard, near Sevenoaks, Kent, v.-c. 16, May 14, 1927.—D. G. Catcheside. Yes, I should so label it—J. Groves. Flowers much too small for this, none of the petals on my sheet are 6 mm. in length. I should refer the plants to f. *Godronii* (Gren.)—W. H. Pearsall. Is this rightly named? It looks to me more like a form of *peltatus*.—I. A. Williams.

Batrachium radians Revel. Old quarry pools, Wickwar, West Gloucestershire, May 10, 1927.—J. W. White. The typical plant. See Notes on British Batrachia by W. H. Pearsall in Rep. B.E.C. 445, 1921; and also the Report for 1923.—J. W. White. Extremely robust examples of this variety, retaining its characteristic regularity of disposition and leaf-contour. The peduncles are longer than usual, and the carpels very strongly hairy. The very strong, rigid and diverging segments of the compact and evenly-disposed submerged leaves are a well-marked diagnostic character.—W. H. Pearsall. Mr. Williams points out that this is given in Lond. Cat. as a variety of *R. trichophyllus*, and that Mr. White's plant has large flowers and in other ways appears very unlike any *trichophyllus* he has seen.

Ranunculus peltatus Schrank [Y 139]. Sides of Dew-Pond, Warlingham, Surrey, June 9, 1927. I regret that this gathering is so scrappy, but flowers were few, and there was not sufficient of the plant to justify my taking more.—J. E. Lousley. I share the collector's regret that this gathering is so scrappy, as the plants are very interesting. The material is too inadequate for a stable determination to be made, but the carpels are uncommonly like those of *R. lutarius* Bouvet and the submerged leaves, although far too numerous, suggest that species. The peduncles are, however, much too long, but that may be due to being stretched in their efforts to ripen fruit under adverse conditions. Will Mr. Lousley gather this again next year?—W. H. Pearsall. Yes, I should say the subterrestrial state of *R. peltatus*.—J. Groves.

Ranunculus peltatus Schrank? Pond on the Green, Chiddingfold, Surrey, May 28, 1927. I sent some immature specimens from this pond last year, and suggested that there

might be two species among them. I think, however, that there is only one species, and that such differences as I noticed were due to the age of the plants, depth of water, etc.—I. A. Williams. This is a weak example of the f. *truncatus* of *R. peltatus*. It is not by any means typical, the peduncles being rather shorter than usual, and the carpels nearly glabrous.—W. H. Pearsall. The many undeveloped carpels and the leaves point I think to a hybrid, with *R. peltatus* as one of the parents.—J. Groves.

Ranunculus penicillatus Bab. ? Roadside pond, Ramsnest, Surrey, May 28, 1927.—I. A. Williams. I collected some of this plant rather early in 1926, before any fruit had formed, but the specimens then taken were very different in the length of the peduncles from those of the 1927 gathering. In 1926 some of the peduncles were six or eight inches long.—I.A.W. This is *R. peltatus* Schrank, with carpels only very slightly hairy, although not glabrous. Apart from this, the plant is quite typical. *R. pseudo-fluitans* Baker and Foggitt (*R. penicillatus* Bab.) is a much more robust plant of running water, and is never found in ponds.—W. H. Pearsall.

Ranunculus Ficaria L., var. *bulbifera* Albert. Hedge bottom, Kingsweston, Bristol, W. Glos., v.c. 34, May 5, 1927. This varietal name is given by Albert and Jahandiez in *Cat. des Plantes Vasc. dans le Départ. du Var.* It produces tubers from the axils of the branches above the soil.—Ida M. Roper. Yes—but are we justified in giving this varietal rank ? I have found the same form in very moist situations, where one would naturally expect the plant to concentrate on vegetative reproduction in view of the extremely favourable and shaded conditions. Much of the *R. Ficaria* material in the Herbarium of the British Museum shows exactly the same character, and examples passing through the Exchange Clubs have been commented on—See B.E.C. Report, 1909, page 436, and W.E.C. Report, 1909, page 218.—J. E. Lousley.

Aconitum anglicum Stapf. No. 421. Native in wet woods, Edford, N. Somerset, July 10, 1927. This is the wild plant found in Somerset and South Wales by riversides and in wet woods, which Dr. Stapf (Bot. Mag., pl. 9088 [1926]) has separated as a species distinct from *A. Napellus* L. The flowering was nearly over when the specimens were taken.—H. W. Pugsley.

Fumaria [*Bastardii* Bor.]. Sandy potato field, Parkstone, Dorset. Aug. 12, 1927. L. B. Hall and J. E. Little. This is a weak form of *F. Boraei* Jord. H. W. Pugsley.

Fumaria————. Ref. 1401. Edge of field near Shere, Surrey. July 31, 1927.—E. C. Wallace. This is a form of *F. officinalis* L. best referred to var. *elegans* Pugsl. It is not typical of the variety owing to its rather long bracts and small sepals.—H. W. Pugsley.

Cardamine amara L. var. *rubescens* Peterm., Ham Haw, Weybridge, Surrey, v.c. 17, May 8, 1927. The above is a very old colony as known to me. There is a good deal of colour on the back of the petals, but this colour is rather fugitive, and much of it is lost in drying and afterwards.—J. Fraser. A long note on *C. amara* L. var. *erubescens* Petermann appeared in W.B.E.C. Report, 1904-05, p. 8, and was published on the suggestion of the late W. B. Hemsley, F.R.S., from information supplied by myself then at Kew Herbarium. It referred to specimens gathered, May 15, 1905, by Miss K. Fitzgerald " in abundance between Black Boy Wharf and New Head Bridge, on the canal, Addlestone, N.W. Surrey. . . . Otto E. Schulz, the author of the monograph of *Cardamine* in Engler Jarhb. XXXII (1903) p. 501, who has seen a specimen, calls it *C. amara* L. var. *erubescens* Petermann, or more exactly *C. amara* L. var. *subglabra* Schur. sub-var. *erubescens* Petermann, and he thinks it the first British record, though there is said to be a very similar plant in Herb. Brit. Mus. from Lodsworth, Sussex, (Rev. E. S. Marshall) named *C. amara*, the flowers of which, however, are less coloured than in the Surrey plant."—H. S. Thompson.

C. bulbifera Crantz. Wood near Watford, Herts, v.c. 20.—I. Helsby.

Erophila verna E. Meyer. var. *majuscula* (Jord.). [Y107]. Cow Green, Widdy Bank Fell, Upper Teesdale, Durham, Alt. c. 1700 ft. July 14, 1927. Plants from this spot have, I understand, been so named by Dr. Druce—I think my specimens agree.—J. E. Lousley. Two plants on this sheet have the narrow silicules narrowed at each end, and the slender pedicels of *E. stenocarpa* Jord. = *Draba lanceolata* Neilr.—J. E. Little.

Erophila verna E. Meyer. var. *stenocarpa* (Jord.). Bank on Hythe Rifle Ranges, Kent, April 18th, 1927. Ref. Y 136.—J. E. Lousley. The pods are hardly narrow enough for var. *stenocarpa*. Type *E. verna*.—J. E. Little.

Capsella Bursa pastoris L. f. *apetala*. Wien, Austria, May, 1926. Dr. K. Kechinger. A very interesting series of plants, that, in the past, would perhaps have received such names as var. *apetala* Koch ; var. *apetala Schlecht.*, or, *Capsella apetala* Opiz. The flowers are mostly apetalous, with the usual number of six stamens, but some are provided with ten stamens, the additional number being due to the metamorphosis of the petals into stamens, the transition being quite apparent.

Almquist has recognised apetalous races of four of his elementary species, *bremensis*, *rhombea*, *viarum*, and *tenuissima*. The plants sent, are nearest to the second-named, but, more probably, belong to G. *gallica* E. At. Apetalous forms of Capsella appear rare in Britain, and seldom collected. —C. E. Britton.

Capsella B.p. (L.) *Druceana* E. At. [Y 64]. Roadside by the Vicarage, Langdon Beck, Forest-in-Teesdale, Durham, July 10, 1927. In this district there is practically no cultivated land, even cottage gardens being almost non-existent. Hence weeds of cultivation such as *Capsella* are very rare. The present gathering probably sprung up from seeds dropped from a horse's nose-bag. The plants were all collected from an area of less than three square yards, and the gathering seems to me to be remarkably homogeneous.—J. E. Lousley. I am not at all confident as to this. There is nothing quite like it in the large series of *C. Druceana* named for me by Prof. Almquist. The affinity seems to be just as much towards *C. concava* E. At., which is closely related to the former, but has smaller capsules, often concave at the edges, and pinnatifid root-leaves.—C. E. Britton.

[*Bursa*] *Druceana* E. At. [Ref. Y 133]. Rubbish heap near Tadworth Station, Surrey, June 12, 1927. I am sorry that the condition of this is so poor, but it is an example of how short the generations of this species may be. I visited the locality less than three weeks before the gathering was made, and the fruits were not then ripe. The plant was only to be found in very small quantity.—J. E. Lousley. There appears to be no reason to dissent from this identification,

BRIT. MUS. (N.H.)
BOTANY

WINCH BRIDGE, TEESDALE.

HOLWICK SCAR.

though I should write the name, *Capsella Druceana* E. At., or, *C.B.-p.* (L) *Druceana* E. At., to be more exact. The name is certainly not *Bursa Druceana* E. At. The small size of the plants is probably owing to growth on an unfavourable site, aided by the dry weather of June, 1927.—C. E. Britton.

Lepidium neglectum Thell. Waste ground, Queen Street, Hitchin, Herts., v.c. 20, Aug. 6, 1927.—J. E. Little.

Lepidium sativum L. Waste ground, Redland, Bristol, W. Glos., v.c. 34, Aug. 3, 1927.—Ida M. Roper. Of this, the Common Garden Cress, White says (Flora of Bristol, 162), " It is always an outcast, and does not propagate itself spontaneously."—Ed.

Viola odorata L., var. *praecox* Gregory. Hedge bank, Hallatrow, N. Somerset, v.c.6, Dec. 23, 1926 and June 14, 1927. Is permanently established since 1917.—Ida M. Roper. These specimens taken in two stages of their growth, are most interesting and convincing. I may go so far as to say " A perfect joy to a critical student of the genus Viola ! "—E. S. Gregory.

Viola variata Jord. [732] Det. E. Drabble. Longmorn, Morayshire, June 13, 1927.—Leg. K. D. Little. Comm. J. E. Little. One of the peculiar N. Scotland pansies. The smaller plants, branched at the base, are fairly typical *variata*, but the larger ones are quite untypical and appear to be very much updrawn. If distributed alone these updrawn specimens may lead to confusion, as they resemble *lepida* flowering in its first year. The nature of the basal branching and more especially the stipules, however, serve to distinguish them from *lepida*.—E. Drabble.

Viola [*arvatica* Jord.]. I had doubts as to whether this might possibly be a young form of something else, and hence included in the gathering the most branched plants I could find. Cultivated field near Burghfield Common, Berks., June 5, 1927. Ref. Y 129.—J. E. Lousley. No ; this is *V. vectensis* F. N. Williams. It is less hairy than the I.O. Wight plant but otherwise typical.—E. Drabble.

Viola———. [Ref. 1402]. Cornfield near Tot Hill, Headley, Surrey, July 24, 1927.—E. C. Wallace. *V. segetalis* Jordan. The well-grown plants are very typical ; some of the smaller ones are too young to be quite characteristic.—E. Drabble.

Polygala serpyllacea Weihe. With blue, red and white flowers. Longmorn, near Elgin, Morayshire, June 28, 1927. —K. D. Little, Comm. J. E. Little.

Dianthus deltoides L. Near Llandudno, Carnarvon, v.c. 49. —I. Helsby.

Cerastium tetrandrum Curt. Dunes near Littlehampton, W. Sussex, v.c. 13, May 16, 1927.—E. C. Wallace. [Ref. 1403]. The bulk of the material is correctly named but mixed with the gathering I found a very few examples of *C. semidecandrum* var. *glandulosum* Koch. These I have separated by paper slips.—C. E. Salmon.

Cerastium subtetrandrum (Lge.) Murb. Burgenland, Austria Ad lacunas salsas, inter Frauenkirchen et Podersdorf, May 30, 1926.—K. H. Rechinger. I suppose this is right, but many of the plants do not agree with Murbeck's description, " caulis ramique a medio vel in superiore tantum parte floriferi."—C. E. Salmon.

Cerastium viscosum. Dunes west of Littlehampton, W. Sussex, v.c. 13, May 16, 1927.—E. C. Wallace [Ref. 1404]. I should place this under var. *elongatum* Druce.—C. E. Salmon. Small specimens showing the characteristic habit. It varies greatly in size.—J. Fraser.

Sagina ciliata Fr. Foot of wall, Littlehampton, W. Sussex, v.c. 13, [Ref. 1405], May 25, 1927. Growing with *Sagina procumbens*.—E. C. Wallace. Excellent examples of this somewhat rare species. All the stems—not the central one only, as stated by some authors—are flowering, eglandular and glabrous. Babington's description of this species is still the best published, and this character is splendidly shown in his examples in the Cambridge Univ. Herbarium. The sepals are pointed and equal, or slightly exceed, the capsule to which they are adpressed.—W. H. Pearsall. Yes ; excellent specimens.—C. E. Salmon.

One scrap on my sheet is of a procumbent stem, with fasciculate ascending leaves and deflexed tips to the peduncle after flowering, and has one flower with sepals expanded in the form of a cross. I believe this to be S. *procumbens* L.

Two complete plants are without central rosette, but have the sepals expanded. These are the eglandular form of *S. apetala* Ard.

In the rest the outer sepals are mucronate, and both calyx

and peduncles are glandular—hairy ; so that these represent the glandular form of *S. ciliata* Fr.

Saginae frequently grow intermixed ; it is most necessary therefore for the collector to look them over very carefully before distributing.—J. E. Little.

My sheet was pure *S. ciliata* and showed much more typical specimens then those of that species on Mr. Little's sheet, which I have seen. I am in entire agreement with his determinations of the three species on his sheet.—W. H. Pearsall.

Lavatera arborea, L. Edge of cliff, Thurlestone, S. Devon, Aug. 18, 1927.—Albert J. Crosfield.

Geranium phaeum L. Roadside, Rotherwick, N. Hants., v.c. 12, May 19, 1927.—Ida M. Roper.

Geranium Robertianum L. var. *maritimum* Bab. [Ref. 1406]. Shingle, Pagham Beach, W. Sussex, v.c. 13, May 25, 1927.—E. C. Wallace. Correct.—E. G. Baker. This agrees with Babington's brief account (Manual, Ed. 3, 62) but it is much too hairy to be included under this name as restricted by Mr. Wilmott in Journ. Bot., LIX, 99 (1921).—H. W. Pugsley.

Geranium purpureum Vill. var. *Forsteri* Wilmott [Ref. 1407]. Shingle, near Middleton, W. Sussex, v.c. 13, July 10, 1927. Abundant over a small area and growing with the var. *maritimum* of *G. Robertianum*. I did not find any var. *Forsteri* at Pagham.—E. C. Wallace. Correct : —E. G. Baker. Correctly named. This plant retains its procumbent habit and tiny flowers in cultivation.—H. W. Pugsley.

Erodium commixtum, Jordan. Field by Anchor Inn, Pyrford, Surrey, May 24, 1927. Stigmas violet—Beak of fruit with a few white hairs.—Two upper petals spotted, the rest unspotted—Stems diffuse—Plant remarkably large, well over a yard across—Peduncles 4-6 flowered—Petals a pinkish-red in colour, longer than the calyx. Ref. Y 124.—J. E. Lousley. "Thank you for your helpful notes on the Erodium. As you will see from Boreau's clavis your plant has all the characteristics mentioned with regard to *E. praetermissum*.

The following is a translation of **Boreau's clavis** to this group of species :—

1. Petals red, conspicuously longer than the calyx 2
   Petals very pâle and scarcely longer than the calyx ... ... *Boraeanum*

2. Leaves with leaflets cut down as far as the midrib ... ... *pilosum*
   Leaflets only incised pinnatifid 3
3. Stem diffuse with sparse hairs 4
   Stem erect with numerous long spreading hairs ... ... *hirsutum*
4. Plant (adult) with stems elongate and leafy 5
   Stems always very short, the peduncles appearing as if radicle ... ... *Tolosanum*
5. Two petals with a spot at the base ... 6
   Petals without spots ... ... *triviale*
6. Stigmas deep reddish-violet ... *praetermissum*
   Stigmas pale rose ... ... *commixtum*

In his description of *E. praetermissum* Boreau adds :— Peduncles longer than the leaves, 2-8-flowered ; sepals oval, shortly acuminate, glandular-hairy ; petals unequal, oblong-oboval,exceeding the calyx, claw short ; beak of fruit with short, sparse, adpressed hairs ; flowers red or lilac, rarely white, 2 petals having at the base a spot of brown, composed of small dots, oval in shape.

In Schultz Arch. Fl. Fr. et Allem. p. 164, *E. commixtum* is described and the following facts are given, among others :— Peduncles 4-6-flowered, longer than the leaves ; sepals shortly acuminate, glandular-hairy ; petals unequal, oblong, shortly clawed, longer than the calyx ; beak of fruit with minute sparse hairs ; flowers light purple, two petals usually with an ovate spot composed of black dots.

The colour of the stigmas does not appear to be given in this description."—Edmund Baker (in litt.)

Ulex Gallii, Planch. Seedlings showing transition from seed leaves to spines ; and root nodules. Parkstone, Dorset, April 7, 1926.—L. B. Hall.

Trifolium dubium Sibth. var. *pygmaeum* Soy-Will. Gravel pits on Worms Heath, Warlingham, Surrey, June 19, 1927. Ref. Y 151. This variety is distinguished from the type by its prostrate habit, small size, and few-flowered heads. The size is intermediate between *dubium* and *filiforme*, from which it is easily distinguished by the deep notch in the standard, the less robust appearance, and the quite sessile leaflets of the latter. The variety seems fairly common in Surrey and Kent in gravelly places, and it is possible that it may at times have been mistaken for *filiforme*. The plants growing

in cart-tracks and dips on the surface of the pit were much larger in every way than those on the more exposed level ground : from this I infer that *pygmaeum* is in all probability only an ecological state.—J. E. Lousley. I do not know var. *pygmaeum*, so I cannot offer an opinion. Plants of the group vary so much in size under different conditions, that there are likely to be dwarf forms, *e.g.* I found *T. procumbens* in 1926 only 2-3 in. high—but also huge plants 2 ft. elsewhere. —J. E. Little. I do not know var. *pygmaeum* Soy.-Will. nor have I his original description. This slender little plant may be var. *microphyllum* Ser. in D.C. Prodr. II, 206 (1825)— "parvulum, foliis minutissimis, capitulis paucifloris." It also agrees with var. *pauciflorum* Coss. and Germ. Fl. env. Paris, 132 (1845), "plante très grêle, à capitules 2-8 flores." They are probably synonymous. A *few* of the heads in Mr. Lousley's specimens are 10-fld. and from his notes I gather that many intermediates occurred between the normal form and this slender state of exposed bare ground.—C. E. Salmon.

Trifolium filiforme L. (Seeds), Old Cricket Field, Hitchin, Herts., July 17, 1926.—J. E. Little. Mr. Little also sent packets of seeds of *T. dubium* from Windmill Hill, Hitchin.

Lotus corniculatus var. *crassifolius* Pers. [1408]. Shingle west of Middleton, W. Sussex, v.c. 13, August 28, 1927. Only, I believe, an ecological form, found inland as well as on the coast.—E. C. Wallace.

Vicia tetrasperma Moench var. *tenuissima* Druce. Roadside near Leigh, Surrey, May 29, 1927. Some of the lower leaves approach type *tetrasperma*.—J. E. Lousley, Ref. 126. I see nothing in these but small and rather starved specimens of *V. tetrasperma*, with rather acute but short leaflets.—H. S. Thompson. Since receiving the above note from Mr. Thompson I have carefully examined the material in the Herbarium of the British Museum. Fries (Novitiae Florae Suecicae, p. 231, 1828) gives a description—"foliolis linearibus acutis, pedunculis unifloris." The British Museum has plants collected by Dr. Druce from "Wolvecote," and "King's Cliffe, North'ton," which are marked as the variety, but I fail to see that the leaves are more linear than in my plants or in the average specimens of *tetrasperma*. In fact the only striking example in the whole series is a plant from Herne Bay, 10/6/68 (collector not stated) which has extremely

narrow leaves well under 1 mm. in greatest breadth. This has been noted in Mr. Wilmott's handwriting as *tenuissima*, but is not included in the cover for that variety. The general inference is that abundant intermediates occur, and there is no clear line of demarcation between the variety and the type.—J. E. Lousley. Fries' variety was originally *tenuifolia*. How did the name "*tenuissima* Fr." get into the Lond. Cat., ed. X.? H.S.T.

V. gracilis Lois. Ref. 1409. Amongst grass by Denbies Drive, Dorking, Surrey, v.c. 17, July 16, 1927.—E. C. Wallace. Yes, with shorter leaflets and smaller flowers than usual.—H. S. Thompson. Rather a small weak form but appears correctly named. I have no record of this plant as a *native* Surrey species—though reported as an introduction—so if wild in this station it would be a new County record.—C. E. Salmon.

Lathyrus Nissolia L. Field, Redstone Wood, Redhill, Surrey, 1860.—J. Linnell. Comm. C. E. Salmon. Widely distributed in Surrey; but though an annual it may be abundant in a station one year, and entirely absent the next. Certain of the Leguminosae have the faculty of lying dormant for years and then suddenly appearing in great numbers, even in uncultivated banks, commons, etc.—J. Fraser.

Rubus argenteus, W. and N. Durdham Down, Bristol, West Gloucester, July 30, 1927.—J. W. White. Yes, some of the panicles abnormal through checked growth.—H. J. Riddlesdell.

Rubus apiculatus W. and N. var. *raduloides* Rogers. The Arbutus Walk, Blaize Castle, West Gloucester, Aug. 31, 1927.—J. W. White. Correct.—H. J. Riddelsdell.

Rubus Drejeri G. Jensen. (*fide* W. M. Rogers) Durdham Down, Bristol, West Gloucester, August 27, 1927.—J. W. White. Yes: the form from Durdham Down so named by Rogers.—H. J. Riddelsdell.

Rubus echinatus Lindl. Woods by Boldermere, Ockham, Surrey, Aug. 7, 1927. Stem arching at first, then prostrate creeping. Petals pink, obovate; filaments white, longer than the greenish styles; young carpels glabrous. Sepals erect in flower, strongly reflexed in fruit.—D. G. Catcheside. Yes.—H. J. Riddelsdell. Single sheet only seen, for this was

received after other Rubus gatherings had been sent off.—J. E. Lousley.

Rubus————. Ref. 37. Addington Hills, Surrey, July 23, 1927.—E. C. Wallace. *R. macrothyrsus* J. Lange. Several panicles were partly spoilt through overlapping edge of sheet. Notes should be given as directed by Rogers (Introdn. to Handbook).—H. J. Riddelsdell.

Rubus————. Ref. 43. Wood by Green Wrythe Lane, near Mitcham, Surrey, August 11, 1927.—E. C. Wallace. *R. ericetorum* Lefv.—H. J. Riddelsdell.

Rubus————. Ref. 14. Forge Wood, near Black Corner, E. Sussex, v,c. 14, Aug. 28, 1927.—E. C. Wallace. *R. hystrix* Whe. and Nees. Several of the sheets have (apparently) incomplete specimens.—H. J. Riddelsdell.

Rubus————. Ref. 30. Stoke Wood, near Oxshott, Surrey, July 3, 1927.—E. C. Wallace. No notes sent : but I believe this is a very strongly armed form of *R. viridis* Kalt.—H. J. Riddelsdell.

Rubus————. Ref. 35. Colley Hill, Surrey, July 9, 1927.—E. C. Wallace. *R. dumetorum* Whe. and Nees. Aggregate.—H. J. Riddelsdell.

Rubus————. Ref. 44. Kingwood Warren, Kingswood Surrey, Aug. 14, 1927.—E. C. Wallace. *R. dumetorum*, Whe. and Nees. Aggr.—H. J. Riddelsdell.

Alchemilla alpestris Schmidt. Roadside above Langdon Beck Hotel, Upper Teesdale, Durham, July, 1927. Ref. Y 97.—J. E. Lousley. I agree : *A. alpestris* Schmidt.—C. E. Salmon.

Rosa dumetorum Thuill., var. *incerta* (Déségl.) Inglestone Common, Wickwar, W. Glos., v.c. 34, July 20, 1927. Flowers pale pink.—Ida M. Roper. These specimens are all *R dumetorum* Thuill. var. *incerta* W.-Dod, f. *laevistyla* W.-Dod, quite characteristic and closely resembling specimens formerly labelled *R. leucochroa* Desv., though I do not suppose these would have been so labelled on account of their pink flowers.—A. H. Wolley-Dod.

Saxifraga sponhemica Gmel. Cwm Idwal, Carnarvonshire, July 13, 1927.—W. A. Shoolbred. Comm. National Museum of Wales.

Callitriche obtusangula Le Gall. Very muddy ditch at Pyrford, Surrey, May 24, 1927. Ref. Y 137.—J. E. Lousley. I cannot find a single well-formed fruit in any of the specimens. From what Mr. Lousley says of the fruit which he found, it is certainly likely to be the plant. But I decline to name Callitriches without well-formed fruit. Dr. Williams' varieties in his Prod. Fl. Brit., are simply leaf-forms.—A. Bennett.

Epilobium obscurum Schreb. × *hirsutum* Linn.? Bank of Kennet Canal near Burghfield, Berks, Aug. 1, 1279. Ref. Y 161.—J. E. Lousley. I regret I have no specimen of this from Mr. Marshall, nor the Monograph of the genus by Haussknecht, but the small flowers, the leaf shape, etc., certainly point to what you name it. In Lond. Cat. there is no reference nor its hybrid name.—A. Bennett. I do not see the signs of hybridity in this, and the seeds appear to be uniformly developed. It seems to be *E. parviflorum* Schreb.—H. W. Pugsley.

Caucalis nodosa Scop. var. *pedunculata* Rouy. Avonmouth, W. Glos., v.c. 34, Sept., 26, 1927.—Ida M. Roper. Correct for the species, but my specimen bears no fruit, which should always be represented in Umbelliferae and Cruciferae. The pedunculate form or state is not very constant in the same colony, nor on the same plant in my herbarium.—J. Fraser. The large leaved specimen sent me has a peduncle 15 mm. long, which equals in length the longest in an example sent to the Club by Mr. Littlebury from Hitchin, 1916, of which the late E. S. Marshall said "I have never seen this before." There is also a specimen in my herbarium which I gathered at Bridgwater, June 25, 1886, with peduncles about half this length: and I'm doubtful if the variety has been put on record for Somerset.—H. S. Thompson.

Oenanthe silaifolia Bieb. No. 422. Chertsey Mead, Surrey, June 4, 1927.—H. W. Pugsley.

Galium boreale L. Killin, W. Perthshire, v.c. 87.—I. Helsby.

G. uliginosum L. (Fruits) Ippolyts Common, Herts., Sept. 8, 1926.—J. E. Little.

Solidago Virgaurea Linn. var. *cambrica* (Huds.). Rocks by Winch Bridge, Upper Teesdale, Durham, July 12, 1927. Ref. Y 86.—J. E. Lousley. G. C. Druce considers that var.

cambrica is limited to the Principality.—J. E. Little. I have no 'Hudson,' but in Smith's Brit. Fl. III, 440 (1829) are some interesting notes on the varieties of this very polymorphic species: *e.g.* "Swiss specimens . . . are even more various than those of Britain, especially in the size of the flowers." Among my Welsh specimens labelled var. *cambrica* the only ones with larger flowers than the rest were gathered by myself at Rhaiadrdu Falls, Dolgelley, 1902. Apparently we must not assume that very dwarf plants with somewhat broad root-leaves which grow on rocks of mountain streams in Teesdale, Cornwall, etc., are var. *cambrica*. But has anyone cultivated this variety?—H. S. Thompson.

Anacyclus valentinus L. Grain-sifting alien. Allotments, Splott, Cardiff, Glam., v.c. 41, Nov., 1927.—A. E. Wade. Comm. National Museum of Wales. Native in the Pyrénées Orientales, Spain, Liguria, and N. Africa.—H. S. Thompson.

Arctium majus Bernh. (Achenes). Purwell, Hitchin, Herts., Sept. 6, 1925.—J. E. Little. This is from the only station known to me in North Herts., where *A. majus* is apparently very scarce. I have seen it this year in Cambridgeshire (Littleport) and in Norfolk (Wretton Fen); also in 1925 at Shouldham Warren.—J. E. Little.

Arctium minus Bernh. (Achenes). Purwell, Hitchin, Herts., Sept. 6, 1925.—J. E. Little. These two series of *Arctium* achenes should be very useful.—H.S.T.

Centaurea————. Pipe near Hereford, July 21, 1927.—R. J. Burdon. An interesting series of plants practically uniform in characters, making an approach to *C. pratensis* Thuill. by reason of the ovate or roundish discs of the phyllary-appendages, and radiate outer florets. It would be interesting to learn if the material contributed was obtained from one plant, or if this form was plentiful. I surmise that it was an individual variation. In spite of the characters mentioned, the correct position of this form would appear to be under *C. nemoralis* Jord., of which it is probably an aberration, such as is occasionally met with. That it is not *C. pratensis* appears evident to me, from the features of the teeth of the appendages, which by their length, flexuousness, and extent of ciliation, indicate that this is a *nigra* form.—C. E. Britton. The Rev. Preb. Burdon informs me that "this Centaurea was growing in several patches along a lane near Pipe Church.

There were a fair number of plants within the space of about a hundred yards." His specimens did *not* come from one patch.—J. E. Lousley.

Crepis paludosa Moench. High meadow above the High Force, Teesdale, Durham, July, 1927. Ref. Y 79. From the well-known locality for *Crepis mollis*.—J. E. Lousley.

Hieracium sabaudum L., sub-sp. *vagum* (Jord.). Thursley, Surrey, Aug. 22, 1926. Other examples of this gathering have been seen by Zahn.—D. G. Catcheside. This plant, a common form of *H. boreale* in the South of England, sometimes referred to var. *Hervieri* Arv.-Touv., seems identical with *H. perpropinquum* Zahn, as given in Mr. Roffey's clavis (Journ. Bot. lxiii, 320-321). The hair-clothing scarcely agrees with that of *H. vagum* Jord. according to the clavis or Rouy's Flore de France (ix 392).—H. W. Pugsley.

Hieracium————. [Ref 1410). Chalky bank by roadside, Boxhill, Surrey, July 24, 1927.—E. C. Wallace. This agrees with authentic material of *H. sciaphilum* var. *strumosum* Ley, which is identified in the last edition of Lond. Cat. with *H. chlorophyllum* Jord. A good and well dried set.—H. W. Pugsley.

Hieracium umbellatum (L) Zahn. Thursley, Surrey, Aug. 8, 1926. Other examples of this gathering have been seen by Zahn.—D. G. Catcheside. Correct.—H. W. Pugsley.

Hieracium————. Silchester Common, N. Hants., August 1, 1927. Ref. Y 160.—J. E. Lousley. Is *H. umbellatum* L. var. *coronopifolium* Bernh.—H. W. Pugsley.

Hieracium————. Blackdown, Sussex, Aug. 4, 1927.—R. J. Burdon. This is a form of *H. sciaphilum* which the late Augustin Ley would presumably have referred to his variety *transiens*. Mr. Roffey appears to have regarded this variety as identical with *H. deductum* Sudre, which he separates from *H. Lachenalii* (= typical *H. sciaphilum*) in his clavis (Journ. Bot. lxiii, 318) by its producing simple as well as glandular hairs on the peduncles and involucres. Ley did not mention any difference of this kind when establishing his variety *transiens* (Journ. Bot. xlvii, 49).—H. W. Pugsley.

Sonchus asper Hill, var. *integrifolius* Lej. Chase Hill, Wickwar, W. Glos., July, 20, 1927.—Ida M. Roper.

Jasione montana Linn. var. *littoralis* Fr. Sand Dunes, Studland Bay, Dorset, June 23, 1926.—L. B. Hall. Nice specimens correctly named.—H. W. Pugsley.

Erica cinerea Linn. Form with all the flowers replaced by compact ovoid heads of crimson bracts. All the specimens sent are from the same plant. See Journal of Botany, 1909, p. 437. Parkstone, Dorset, Aug. 31, and Oct. 5, 1927. Ref. No. 703.—L. B. Hall. I had seen this curious heath, with the flowers replaced by bract-like organs, some years ago, but was unaware that it was so plentiful. It would have been interesting if the collector had stated whether or not it bears normal flowers, or merely increases by branching. Teratologically it is a partial reversion of the floral leaves to normal leaves.—J. Fraser. This is described by Mr. Hall as var. *Rendlei* in Journ. Bot. 1928, p. 25.

Trientalis europaea L. Longmorn, near Elgin, Morayshire, Scotland, June, 1927—K. D. Little. Comm. J. E. Little.

Anagallis arvensis L. var. *pallida* Hook. f.—No. 423. Cult. Wimbledon, 1927. Orig. Poole Harbour, Dorset, 1913.—H. W. Pugsley. This pretty Pimpernel, which produces pale pink corollas with a bright crimson centre, was collected at Poole Harbour in 1913, and from seeds sown in my garden the following spring the plant has perpetuated itself without variation up to the present time. The common scarlet Pimpernel has also grown in my garden for many years, and although it is often intermingled with the pink form, they both appear constantly to maintain their distinctive features. I have never seen any other colour form in the garden.

The plant is not sent under the name of var. *carnea* (Schrank) as Schrank (Baier. Flora I, 461) states that the stem of his plant is erect and its flowers flesh-coloured (without any mention of a dark centre). It is treated as an intermediate between *A. phoenicea* (*A. arvensis* L.) and *A. coerulea*, and under the former of these Schrank gives a variety *β*—" with white flowers," which may be identical with my Poole plant. Some of the Pimpernels with nearly self-coloured flowers, flesh-coloured, lilac, or dull purple, which are frequently met with in Britain as on the Continent, are probably referable to *A. carnea* Schrank. Hooker's varietal name *pallida* in the Student's Flora is the earliest that I know to denote a form with clearly bicoloured flowers, but it may prove to be antedated.—H. W. Pugsley.

Symphytum peregrinum Ledeb. Ref. 1411. Burrows Cross, near Shere, Surrey, June 5, July 31, 1927.—E. C. Wallace. Yes: I think so.—J. E. Little. Undoubtedly pure *S. peregrinum*. There is no trace of hybridity with either form of *S. officinale*.—Jas. W. White.

×*Symphytum densiflorum* Bucknall. (*S. offic. var. purpureum* × *peregrinum*) Vide "Revision of the genus Symphytum by Cedric Bucknall, 1913." Bank of the river Chew near Chew Magna, N. Somerset, June 14, 1927.—Jas. W. White.

Myosotis palustris Hill, var. *strigulosa* (Reichb.). By the Land Yeo, Wraxall, N. Somerset, v.c. 6, Aug. 2, 1927.—Ida M. Roper. Yes, what I take to be this variety.—C. E. Salmon. This is a form I have frequently met with. It differs from typical *M. palustris* in its smaller, less obtuse leaves and stiffer habit, but I do not think it is the var. *strigulosa* Reichb., which is more erect and smaller in all its parts.—A. E. Wade.

Myosotis versicolor Sm. (Fls. white, then blue). Tingrith, Beds., May 21, 1925.—J. E. Little. This is the sub.-var. *dubia* Rouy and Fouc. It appears to be the common form in Britain.—A. E. Wade.

Cuscuta Epithymum Murr. Parkstone, Dorset, Aug. 15, 1927. Upon *Erica cinerea, E. Tetralix, Calluna vulgaris, Ulex Gallii*.—J. E. Little.

Solanum Dulcamara L. var. *marinum* Bab. Ref. 1412. Growing with the type on the shingle near Middleton, W Sussex, v.c. 13, May 28, 1927.—E. C. Wallace.

Veronica polita Fr. [707]. Purwell Field, Hitchin, Herts., Mar. 27, 1927.—J. E. Little. Though fairly frequent in gardens and allotments, *V. polita* is in this district only occasional on agricultural land, where the common weeds of this genus are *V. arvensis*, *V. persica*, and *V. hederaefolia*.—J. E. Little. Yes; I agree. I wish members would send in *agrestis* to the Club.—C. E. Salmon. (Mr. Salmon probably did not receive a sheet of Mr. Little's.—J. E. Lousley.) Very large flowered. I think it must come under var. *grandiflora* Bab., but I have had larger flowered *grandiflora* from Elmton, Derbyshire.—E. Drabble, There is no ripe fruit on my specimen, but the name is no doubt correct. The corollas, however, look larger than the normal. Is it var. *grandiflora* Bab.?—I. A Williams.

Veronica agrestis L. [720]. Ransom's Herb Garden, and Green's Nurseries, Hitchin, Herts., July 12, 1927—J. E. Little. Yes: *agrestis*.—E. Drabble. The particular conditions which suit *V. agrestis* L. seem to be a finely disintegrated soil rich in humus. Hence it may sometimes be looked for with success in garden ground and allotments in districts where it does not occur on ordinary agricultural land. Many local floras record it as common. Webb and Coleman (Flora Hertfordiensis, 1849) call it 'common' in all their districts. It is certainly not so now in the Ivel basin. The Rev. E. F. Linton (Fl. of Bournemouth) notes:—"This species seems to be decreasing," and this may be a possible explanation; but it is probable that there has been frequent confusion as is evidenced by Herbarium specimens with *V. polita* Fr. on the one hand, and with *V. persica* Poir. on the other. Coste (Fl. de France) gives valuable characters for the styles, viz. *V. persica* Poir., style de 2 mm: *V. polita* Fr., style long de 1 mm.; *V. agrestis* L., style de moins de 1 mm. Ascherson and Graebner (Fl. des N.O. Deutschen Flachlandes, 640) separate *V. polita* Fr. as having the edges of the sepals overlapping even in fruit, from *V. agrestis* L. (and *V. opaca* Fr.) in which the fruiting sepals do not overlap. The number, and consequently the size, of the seeds in each pouch is variable. A. and G. give: *V. Tournefortii* Gmel., 5-8: *V. opaca* Fr., 1-5: *V. agrestis*, 2-6: *V. polita* Fr., 4-14. Even these overlapping limits do not entirely express possible variations: for I have found *V. polita* with as few as three, and *V. agrestis* with as many as eight seeds in a cell.

Mr. I. A. Williams has sent me *V. agrestis* (Moreton, near Ongar, Essex, 1926) from garden ground; and from a vineyard at Mouthier, Doubs, W. France, 1927. I have seen it myself this year on garden ground or allotments in Kent (Tonbridge and Southborough), Norfolk (Wallington Hall, near Downham Market), Bedfordshire (Aspley Guise and Luton), Hertfordshire (Hitchin). Only in one case has it been on really agricultural land, viz. on White Hall and White House Farms, Littleport, Cambridgeshire, in crops of sugar beet; and here the fine black fen peat gives the same conditions which induce the plant to generally prefer garden soil, as above noted.—J. E. Little.

Veronica agrestis. L. [722]. Allotments, Hitchin Hill, Hitchin, Herts., July 8, 1927.—J. E. Little. Yes: very fine *agrestis*. —E. Drabble. Yes. The flowers in this gathering and in

Mr. Little's number [720] also, look as if they had been white. I have found this uncommon plant in several places in England, and also in France, and always the flowers have been white, with sometimes a very faint tinge of blue. The ordinary book descriptions, which say the flowers are blue with a white lower tip, seem misleading. I have found *V. agrestis* in gardens and allotments, and (once) on the top of a wall, but never, in England, in arable fields. In France I have seen it in vineyards and by roadsides.—I. A. Williams.

Veronica scutellata L. Marshy ground, Mitcham Common, Surrey, July, 1926.—D. G. Catcheside. Yes, the glabrous plant. The var. *villosa* Schumacher (which has the inflorescence glandular-hairy) may have the stem glabrous (Freshfield, S. Lancs.), densely hairy eglandular (Hartlebury Common, Worcestershire) or with some glandular hairs (Brackenfield Common, Derbyshire).—E. Drabble.

Euphrasia ————. Waltham Quarry, Rutland, v.c. 55a, Aug. 19, 1926.—A. R. Horwood. Comm. Nat. Mus. of Wales. *E. nemorosa* var. *ciliata*.—E. Drabble. This seems to be a luxuriant form of *E. Kerneri*, of unusually strict habit and so recalling *E. stricta* Host.—H. W. Pugsley. Strict, little-branched forms of *E. nemorosa* var. *ciliata* Drabble. The flowers are small, have the lower lip trilobed, the lobes emarginate without hair. The bracts are spreading arcuate recurved, ovate in outline, with an acuminate or acute apex and 4-5-6 teeth on either side. Of these the upper are ovate-acute and the lower lanceolate-aristate spreading. The terminal arista is usually bi- or tri-furcate. The bracts are slightly longer than broad and not cuneate at the base. Very similar examples have, in the past, been referred to *E. brevipila* or *E. stricta*.—W. H. Pearsall.

Euphrasia————. [738]. Near Cranwich, W. Norfolk, Sept. 19, 1927.—J. E. Little and J. L. Luddington. "The plants from Cranwich are not easy. I have seen similar examples from various British localities, and they have often been named *E. nemorosa*, or *E. curta* var. *glabrescens*. . . . They show considerable resemblance to *E. confusa*, except for the large flowers, but I hesitate to place them there, and am not at present prepared to identify them."—H. W. Pugsley (in litt. 18. xi. 27).

Many of these plants are much more brightly coloured

than is usual in *E. nemorosa* on the chalk hills of Herts.—J. E. Little. From its slender, flexuous and much branched habit, with filiform lower branches, narrow leaves and broad capsules, I regard this as a form of *E. confusa* f. *albida*, although it is by no means typical.—H. W. Pugsley.

Euphrasia confusa Pugsley. No. 5523. Two gatherings, unfortunately mixed. Above Simonsbath, Exmoor, West Somerset, v.c. 5; at 1400 ft. close to the road to South Molton and near the Devon border; at 1100 ft. on a grassy knoll in the Barle valley, July 15 and 17, 1927. Flowers mostly yellow. See Journ. Bot. 1928, p. 26.—H. S. Thompson. Correctly named. A large proportion of the specimens bear white flowers, and in a few the corolla is purplish. These are referable to my f. *albida*.—H. W. Pugsley. Agrees with Pugsley's description of the yellow-flowered Eyebright of Exmoor. The plants are under the average height of the species, but my specimens show the state with simple stems, as well as those that are freely branched, with filiform branches. Yellow flowers are uncommon in the genus, and the specimens are welcome.—J. Fraser.

Euphrasia Rostkoviana Hayne. No. 5522. Growing with *E. confusa* close to road to South Molton above Simonsbath, Exmoor, W. Somerset, v.c. 5, at 1200 ft. to 1400 ft. Flowers yellowish, but also mauve and white, July 15, 1927—H. S. Thompson. This is *E. Rostkoviana*.—E. Drabble. Yes, young and immature subalpine forms of this. The glandular hairs are abundant on the stem but relatively fewer and shorter on the upper portions of the bracts.—W. H. Pearsall. A slender form of *E. Rostkoviana* similar to that (also from Exmoor) distributed through the Club in 1922-23. But in this latest gathering—what I have not seen before—a number of the specimens show yellow flowers as in *E. confusa*. I see no signs of hybridity here, for though the plants are young, the earliest capsules appear normally developed, and Eyebrights do not generally hybridize freely in this country. The tendency to produce yellow flowers in two distinct species growing in this district is peculiar and would seem due to some special local conditions.—H. W. Pugsley.

Bartsia alpina L. Pastures of Widdy Bank Fell, Upper Teesdale, Durham, July, 1927.—J. E. Lousley.

Rhinanthus minor Ehrh. ? By Kennet Canal, Burghfield, Berks., June 5th, 1927. I place this as above because the branches are shorter than the stem, and the stem-leaves shorter than the internodes. However, some plants—marked with orange slips of paper—have 2/3 pairs of intercalary leaves ; and the calyx teeth are subulate. Ref. Y 134.—J. E. Lousley. Yes, I think *R. minor* Ehrh. *R. stenophyllus* would not be flowering and fruiting so early as June 5. As this gathering shows, *R. minor* does *occasionally* have leaves on the stem above the uppermost pair of branches, in spite of Sterneck's statement to the contrary. One could not hesitate to place all this gathering under the same name.—C. E. Salmon. I believe that these intercalary leaves occur chiefly when *R. minor* is growing in exceptionally moist situations (*e.g.* also at Hedge Court Pond, Surrey).—J. E. Lousley.

Rhinanthus [*major* Ehrh. var. *stenoptera* Fries.] Pasture by Winch Bridge, Upper Teesdale, N.W. Yorks. side of river, July 12, 1927. Ref. Y82.—J. E. Lousley. This is clearly no form of *R. major* ; bracts, corolla, etc., forbid that name. It appears to be a tall state of *R. minor* Ehrh.—C. E. Salmon.

Utricularia minor L. Peaty pools on Horsell Common, Surrey, August, 1927.—W. Biddiscombe.

Mentha alopecuroides Hull. Ref. 1413. Boggy ground by stream, Broadmoor, Leith Hill, Surrey, Sept., 25, 1927.—E. C. Wallace. Correct.—A. Bennett. Yes, mine is a very typical example.—C. E. Salmon. Correctly named. The leaves on freely growing plants are practically unmistakeable. All the specimens were well developed. . . . —J. Fraser.

× *Mentha cordifolia* (Opiz) Fraser, var. *dourensis* Fraser (*rotundifolia* × *spicata*.) The Dour, New Aberdour, North Aberdeen, v.c. 93, Sept., 17, 1927. The specimens are somewhat discoloured, because they were considerably shaded by the rank vegetation, consisting of *Spiraea Ulmaria*, *Heracleum Sphondylium*, etc., with which they were competing. The variety differs from the type in the spikes being more slender, more interrupted, and longer, with dark purple instead of pinkish flowers. The leaves are also more pointed and the serratures deeper.—J. Fraser.

Mentha piperita Linn. var. *vulgaris Sole* (Lon. Cat.) = var. *subcordata* Fraser. Marshy spring-head above Walton-in

BRIT. MUS. (N.H.)
BOTANY

TOP OF WIDDY BANK FELL, TEESDALE.

SUGAR LIMESTONE HILLOCK ON CRONKLEY FELL.

Gordano, N. Somerset, August 28, 1927. When writing in the Gardener's Chronicle, Oct. 22, 1922, Mr. Fraser considered that Nelmes' Alveston plant—practically identical with the present gathering—agreed "in every particular with the description by Sole and other authors." But on further study he has concluded that Sole's type was probably confined to the West Country localities that he mentioned; and that our latterday "*vulgaris*" differs widely enough to merit separation as var. *subcordata*. A specimen in my possession—a single stem—believed to have been distributed by Sole, but without locality or date, seems to support Mr. Fraser's conclusions. It appears also that our Mendip *M. citrata* should be merged with this *piperita* variation, (Menthae Britannicae, Rep. Bot. Soc. Suppl., 1926) a change one had anticipated.—Jas. W. White. Certainly—A. Bennett. Correctly named. There are several varieties belonging to the *vulgaris* Sole type, and as three of them were quite different from this, I had to give it a separate name when describing the wild varieties. Some of Mr. White's specimens are sportive, with the lower verticils remote, as if reverting to *aquatica*. This is interesting and would seem to confirm the theory that *piperita* is the hybrid *M. aquatica* × *spicata*.—J. Fraser.

Mentha aquatica L. var. *capitata* Briq. [Y 149] Laneside near Holmwood, Surrey, August 21, 1927.—J. E. Lousley. Yes, I think so; it is the var. *minor* Sole, and perhaps the commonest form of *M. aquatica*. My specimen is not strikingly hirsute nor are the heads unusually broad, but Briquet's description is wide enough to cover a good deal of variation.—Jas. W. White. Rightly named according to the authority quoted, but there are older names for it. Many people take it as the type of the species, *M. aquatica* Linn., with *M. hirsuta* Hudson as a synonym. The latter is well represented in the herbarium of Linnaeus, while his description would apply to several of the varieties. *M. aquatica* var. *minor* Sole is also an older name than Briquet's.—J. Fraser.

Mentha sativa L. var. *paludosa* Sole, = var. *crenata* Briquet. Marsh at Walton-in-Gordano, N. Somerset, August 30, 1927. Two years ago Mr. Salmon suggested that this Mint (sent as *rivalis* Wats.) agreed well with var. *paludosa* Sole. Mr. Fraser, however (Menthae Britannicae, Rep. Bot. Soc. Suppl. 1926) discards the name *paludosa* altogether, and identifies

my Walton *sativa* with var. *crenata* Briq.—Jas. W. White. Same as *M. paludosa* Sole.—A. Bennett. The small, ovate leaves with the shallow crenatures directed forward and lying quite close to the edge of the leaf are quite like those which Briquet named *M. verticillata* Linn. var. *crenata* Briq. I would not consider var. *paludosa* Sole synonymous with this. Sole's plate 22 shows much larger, oblong-elliptic leaves, and the terminal verticils crowded into a spike. Smith had specimens from Sole, and said that the spike was not constant. I have specimens of × *M. verticillata* Linn. with a spicate apex to the inflorescence, also a similar state in × *verticillata* Linn. var. *ovalifolia* Briq., and have seen it imitated occasionally by several other varieties of the hybrid.—J. Fraser.

Mentha aquatica Linn., nearest var. *acuta* Briq. Marsh near Coldharbour village, Surrey. Ref. Y 148. This plant had reddish upper parts.—I was unable to make a larger gathering as it was only just flowering. August 21, 1927.—J. E. Lousley. Yes; just the variety named *acuta* Briq., but a much older name is *M. aquatica* Linn. var. *major* Sole (1798). The leaves are longer, more attenuate at the apex, narrower, and more narrowed to the somewhat cuneate base than the more typical *M. aquatica*.—J. Fraser.

Stachys alpina L. Open woodland above Wotton-under-Edge, W. Glos., at about 600 ft., July 4, 1927.—H. S. Thompson.

Galeopsis Tetrahit L. (nutlets). Sootfield Green, Herts., Sept. 13, 1926.—J. E. Little. *G. speciosa* does not occur in the Hitchin district, so that there is no difficulty in obtaining *G. Tetrahit* in late fruit.—J. E. Little.

Galeopsis———. (1 packet only). Wretton Fen, W. Norfolk, Oct. 14, 1925.—J. E. Little. Comparing with undoubted *G. Tetrahit*, in the Wretton plant the calyx is ess strongly ribbed, the tube actually longer, the teeth actually and relatively shorter. The nut is slightly more elongate, but not more "convex above neutrally" (Hooker) and is spotty brown in colour. The inner face is marked with veins.—J. E. Little.

Galeopsis speciosa Mill. (nutlets). Littleport, Cambs., Sept. 9, 1927.—J. L. Luddington and J. E. Little. These fruits were obtained from plants still in flower. In the case of plants past flower and leaf it is very difficult to appreciate

the differences in the calyx and in the nut between *G. Tetrahit* and *G. speciosa* mentioned by Hooker and by Babington. Ascherson and Graebner generally mention differences in the fruit, but in this case (Fl. des N.O. Deutschen Flachl. 602) have nothing to say. [As a test I send another packet gathered in Wretton Fen, W. Norfolk, Oct 14, 1925, after leaf and flower had vanished, which I believe to be *G. speciosa*, but cannot certainly differentiate. Perhaps some one will be able to say to which it belongs.]—J. E. Little.

Lamium purpureum L., forma *alba*. Allotment ground, Westbury-on-Trym, W. Glos., v.c. 34, Mar. 14, 1927.—Ida M. Roper.

Teucrium Botrys L. Ref. 1414. Seedlings from a gravelly field between Banstead Wood and Kingswood station, Surrey, May 17, 1927. This plant is a winter annual, these having germinated the previous autumn.—E. C. Wallace.

Illecebrum verticillatum, Linn. Origin New Forest, Hants., Sept. 14, 1925. Grown at Parkstone, Dorset, on uncultivated ground consisting of almost pure sand under partial shade of pine trees. Gathered Sep. 20, 1927. Each plant formed a dense circular prostrate mat, the largest measuring 33 inches in diameter. I have previously distributed specimens of this plant from the New Forest locality, but think that members may like to have these well-grown specimens of complete plants, particularly as they do not diminish the plant in any wild habitat.—L. B. Hall.

Chenopodium polyspermum L. White Hall Farm, Littleport, Cambs., v.c. 29., Sept. 15, 1927—J. E. Little. Some packets of this had "var. *cymosum* Moq." added in ink. The localities were all the same. A couple more were marked "var. *spicatum* Moq." —J. E. Lousley.

Chenopodium [*album* var.]. Weed at Parkhurst, Lurgashall, West Sussex, Oct. 27, 1927.—R. J. Burdon.—The form of the middle leaves, and the smaller keel-less seeds, show that this is *C. ficifolium* Sm.—J. E. Little. Luxuriant specimens of *C. ficifolium* Sm.—H. W. Pugsley. Is not this *C. ficifolium* Sm. ?—I. O. Williams.

Salicornia stricta Dum. Mud flats, Marshfield, Monmouth. —A. E. Wade and H. A. Hyde. Comm. National Museum of Wales. These specimens are not homogeneous. All

the plants are too mature to permit of critical determination, but two appear to be *Salicornia dolichostachya*. If not this species they are hybrids in which the *dolichostachya* characters preponderate. The remaining specimens appear to be partly *Salicornia annua var. stricta* and partly putative hybrids between *S. annua* and *S. dolichostachya*.—E. J. Salisbury. Dr. Salisbury kindly sorted the specimens into three lots, and I have carefully marked the labels as follows in order that members may know which they receive :—

1. *S. annua var. stricta*—labels just ticked in red ink.
2. *S. dolichostachya* and
3. Putative hybrids as above are so marked on the labels. —J. S. Lousley.

Polygonum viviparum Linn. Fields about Winch Bridge, Upper Teesdale, Yorkshire, July 3, 1927.—J. E. Lousley.

Rumex sanguineus L. (restr.) (Fruits). Hort. Hitchin, Herts., Oct. 2, 1926. Some members may like to grow this *Rumex*. I have never seen it in a truly wild state.—J. E. Little.

Rumex palustris Sm. (Fruits, 741). Gravel pit, Brickyard Wood, Wallington, W. Norfolk, Sept. 10, 1927.—J. E. Little.

Rumex obtusifolius × *pulcher* [685]. Cricket Field, Hitchin, Herts., Sept. 3, 1926, June 8 and August 1, 1927.—J. E. Little. The present plants differ from *R. pulcher* in the same field by the less flexuous straighter branches and in the greater proportion of unbranched stem at the base. They are taller and more upright growing. But they also differ from the *R. obtusifolius* × *pulcher* [581], distributed in 1923, by the smaller development of the stem leaves which hardly differ from those of *R. pulcher*.

I sent a sheet of the Sept. gathering to Dr. K. Rechinger of Vienna, who replied (in litt. 22 iii. 27) :—" [685] ist *R. obtusifolius* × *pulcher*."—J. E. Little.

Rumex Acetosella L. (Fruits) (a) *angiocarpus* (Murb.) and (b) *acetoselloides* (Bal.). Parkstone, Dorset, Aug. 9, 1927. —L. B. Hall and J. E. Little. The var. (b) was gathered with (a), and until they were dry and rubbed out I did not become aware of its occurrence, intermixed with the commoner form, but apparently less abundant.—J. E. Little.

Alnus glutinosa Gaertn. f. *typica* (Moss) (Fruits). Ash Brook. Hitchin, Herts., Mar. 1, 1927. This variety is less

common in the district than var. *microcarpa* Rouy. The strobiles shrink considerably in drying.—J. E. Little.

Betula pubescens Ehrh. Stiria : in turfosis prope Aussee. Alt. ca. 700 m., Oct. 13, 1926. Karl Rechinger. *Betula pubescens*.—A. B. Jackson.

Salix triandra × *viminalis* b. *Trevirani* Sprengel [Ref. No. 452]. Cultivated at Kew from Mortlake, Surrey, v.c. 17. Catkins 17th April, leaves 15th August, 1927. By cultivating this hybrid I have been able to get rather better specimens than from the wild bush that gets broken by people gathering catkins they call palms. The stipules of the hybrid are very distinct from those of the hybrids *S. rubra* and *S. undulata*, which the leaves resemble.—J. Fraser.

Salix [*fragilis* × *cinerea* ?]. Near Chertsey Bridge, Woking, Surrey. Catkins April 7, Leaves Sept. 22, 1927. I think this must be a hybrid, possibly with *cinerea* as there are pretty distinct striations on the stems.—W. Biddiscombe. Mr. Little says no such hybrid has hitherto been recorded : the leaf-piece sent to him is typical *fragilis* ; and after boiling out a couple of catkins and dissecting the flowers he finds the number of stamens was three. This might have been ascertained in five minutes when the catkins were fresh. The flowering piece is *S. triandra*. "There is no record for such a hybrid as *S. fragilis* × *cinerea* nor *S. cinerea* × *fragilis*, so far as I can find. The specimens are *S. triandra* × *viminalis* var. *Trevirani* Sprengel. However it is a first-class find for Surrey, where little of it occurs. The leaves are much broader, longer and more attenuate-acuminate than those of the sister hybrid, var. *hippophaefolia* Thuill. The small, very hairy catkins, and short stamens quite conform to those of all the specimens I have seen."—J. Fraser.

Salix fragilis L. (Det. J. Fraser) ♀ [714]. Gt. Wymondley Springs, Herts., June 11, Aug. 3, 1927.—J. E. Little. Many of the serratures approximate in pairs. The young leaves are more hairy than those of the more common state of *S. fragilis*, but different trees vary in the amount of hairiness. The pedicels of the ovary are too long for the hybrid *S. alba* ×*fragilis* ; and the ovary itself is subulate and gradually attenuate into the short style. That of the hybrid is ovoid and ends abruptly below the style, in this respect agreeing

with *S. alba*. The tree is what Dr. White named *S. fragilis* var. *britannica* F. B. White, but I do not regard it as anything but the ordinary *S. fragilis*.—J. Fraser.

Salix alba × *fragilis* (*S. viridis* Fr.) (Det. J. Fraser) ♀ [713]. Grove Mill, Hitchin, Herts., June 4, July 16, 1927.—J. E. Little. This is *S. alba* × *fragilis* (*S. viridis* Fr.). The serratures are longer than those of *S. alba*. The leaves are broad like those of *S. alba*, and are silky before unfolding, but they become glabrescent as the summer wears on as a result of the effect of *S. fragilis*. The ovaries are shortly stalked, ovoid, and terminate abruptly below the short style, as the hybrid requires.—J. Fraser.

Salix [*caprea* ×] *viminalis*. Arthur's Bridge, Basingstoke Canal, Woking, Surrey. Catkins March 28, Leaves July 25, 1927.—W. Biddiscombe. Some forms of the hybrids of the *capreæ* group with *S. viminalis* are difficult to distinguish from *S. viminalis*. But in this plant the leaves, the styles and the stigmas show nothing but *S. viminalis*.—J. E. Little. It is *S. viminalis* Linn. The leaves are large, and long, but the very fine, almost silky, short and closely adpressed pubescence on the under-surface of the leaves in unmistakable. The catkins are relatively slender, with pale brown bracteoles, long styles and stigmas, conforming to this species. The leaves of the hybrid have the pubescence or tomentum of the under-surface looser, and the hairs more curled, due to the influence of *S. caprea*.—J. Fraser.

Salix caprea × *viminalis* (= *S. mollissima* Sm. f. *rugosa* Leefe.) Hedge, Ursleigh Hill, Pensford, N. Somerset, v.c. 6, Mar. 30, June 22, 1927.—Ida M. Roper. I agree with the name. The leaves are short, broad, and more or less coarsely crenate on the margin, and differ from the type in these respects. The rugosity of the upper surface of the leaves is always more or less entirely lost by pressure, while being dried.—J. Fraser.

Salix acuminata Sm. ♀ [513]. Stratiotes Pond, Ickleford, Herts., v.c. 20, Mar. 15, Oct. 1, 1927. See W.E.C.R. 1921, 181.—J. E. Little. Quite correct, except that it should be written × *S. acuminata* Sm. to indicate that it is a hybrid, though the exact parentage has never been proved. It is always ♀. The size of the leaves would indicate *S.*

caprea; the presence of *S. cinerea* is indicated by striae under the bark; and *S. viminalis* in it is not in doubt.—J. Fraser.

Salix aurita × *caprea*. Burgenland, Austria: Leitha Gebirge, 9. v. 1926.—K. Rechinger. This may be right, considering the thin character of the pubescence, compared with that of *S. caprea*, and the small size of the leaves are also in its favour. The leaves would have afforded better proof, if they had been gathered in August or September, instead of on the 9th May. The striae are very feeble, sometimes absent from the twigs under the bark, but that is the case with British specimens. *S. caprea* has few or no striae, and seems to obliterate those of the *S. aurita* parent.—J. Fraser.

Salix cinerea L. [f. *aquatica* (Sm.)]. Wood, Cambridge Batch, Long Ashton, Bristol, N. Somerset, Mar. 28, June 15, 1927.—Ida M. Roper. Leaves far too hairy for the f. *aquatica*, according to Smith's descriptions, and his specimens in the Linnean Herbarium. The leaves are ashen grey or glaucous beneath with a few short scattered hairs, or small tufts occasionally. I would name this *S. caprea* × *cinerea*. The lower leaves are broadly elliptic like *S. caprea*; the upper ones more like *S. cinerea*, and all are tomentose beneath like *S. caprea*. A rare find and beautiful specimens.—J. Fraser.

Salix caprea × *grandifolia*. Comb. *supercaprea* Toepffer. Lower Austria, by the stream between Knedelhof and Gscheid near Türnitz, June 19, 1926.—K. H. Rechinger. So far as these specimens are concerned, they are *S. caprea* × *grandifolia* var. *attenuata* Wimmer. The leaves are attenuate at both ends, whereas the var. *macrophylla* Wimmer has the leaves rounded at the base. The leaves are rather densely pubescent for the var. *attenuata*, but the 19th of June was too early to gather them to show their proper character when mature. *S. grandifolia* varies immensely in the character of the leaves, and so does *S. caprea* on the Continent and in Britain, so that variations in the hybrid are to be expected. —J. Fraser.

Salix cinerea L., f. *oleifolia* (Sm.). By the Land Yeo, Wraxall, N.Somerset, v.c. 6, Mar 24, Aug. 2, 1927.—Ida M. Roper. Most of the leaves are rather short to show this in its best form. Summer shoots would have shown this better. The few leaves that have attained the proper length show

the willow to be the f. *oleifolia*, but the close and beautiful reticulation is feeble. I would suggest that the bush has been shaded. I have a similar gathering from the north side of a pine tree.—J. Fraser.

Salix grandifolia Sér. Lower Austria; by the stream between Gscheid and Schwarzenbach, about 750 metres alt., June 19, 1926.—K. H. Rechinger. I agree. A few of the uppermost leaves begin to show the narrower and longer forms of the leaves on summer shoots, otherwise the specimens are identical with those from Styria.—J. Fraser.

Salix grandifolia Séringe. Stiria, Austria; ad ripas fluvii Traun, prope Alt-Aussee. Alt. ca. 700 m. Aug. 20, 1926.—Dr. Karl Rechinger. Correctly named. The chief fault I find with the specimens is that Dr. Rechinger has not gathered any of the long summer shoots to show the larger and longer leaves produced by this species when growing strongly. Possibly none were present on the bush. The finely rugose upper surface, the grey-glaucous, finely and thinly pubescent and densely netted under-surface of the leaves, with conspicuous white midrib and primary nerves are sufficiently characteristic of this species. It lies between *S. caprea* and *S. cinerea*, with the large or broad leaves of the former, and the striae of *S. cinerea* under the bark. Those who have got two or three year old pieces of twig can boil the same, when the bark can be peeled off.—J. Fraser.

Salix glabra Scop. Stiria: In Monte Zinken prope Aussee, solo calcareo. Ca. 1600 m., August 29, 1926. Comm. Dr. Rechinger. Correctly named. Usually grows on chalk, in subalpine regions above the range of trees. Leaves obovate to oblanceolate, rather irregularly crenate-serrate, glabrous from the first, shining above as if oiled, and bluish grey (caesius) beneath. Styles rather long, stigmas deeply bifid or bipartite. Ovary glabrous. A bush 2 ft. high at the higher elevations, and 3-4 ft. at the lower elevations.—J. Fraser.

Salix arbuscula L. var. *erecta* Anderss. In Monte Zinken prope Aussee, Stiria, Austria. Ca. 1600 m., Aug. 29, 1926.—Comm. Dr. Rechinger. The var. *erecta* Anderss. is erect, and usually tall for the species. In this country it is not common, but I have found it three feet high in the Scottish Highlands. The small, glabrous, lanceolate to oblanceolate, bluntly serrulate leaves are quite in keeping with *S. arbuscula*,

and the stout branches and twigs are good indications that the variety is *erecta*.—J. Fraser.

Populus tremula L. ♂ [703]. Bull's Green, Datchworth, Herts., Feb. 27 and July 22, 1927.—M. Brown and E. F. D. Bloom. Comm. J. E. Little. Correct.—A. Henry. Also *Populus tremula* L. ♀ [706]. Near Hyde Mill, Ickleford, Herts., Mar 15, May 13, 1927.—J. E. Little. Correct.—A. Henry.

Populus canescens Sm. ♂ [704]. Planted. The Grange, Stevenage, Herts., Mar. 9, June 22, 1927.—J. E. Little. Correct.—A. Henry.

×*Populus canadensis* Moench ♀ [621]. Planted, Avenue Lodge, Hitchin, May 3, Oct. 6, 1925.—J. E. Little. Answers the description as I have it of this tree. It lies between *P. marilandica* Bosc. and *P. nigra* L., but the leaves are less acuminate than those of the former, and it lacks the hairs on the young shoots and petioles usually present on the latter. The catkins have been gathered in excellent condition, and show the large, divided stigmas of an anemophilous species.—J. Fraser. Messrs. A. Henry and A. B. Jackson consider that the proper name is rather *P. marilandica* Bosc. —J. E. Little.

Iris Pseudacorus L. var. *Bastardii* (Bor.). Ref. 1415. Baron's Pond, Epsom Common, Surrey, June 4, 1927. Quite abundant in this pond together with the type. I have not seen it elsewhere in Surrey.—E. C. Wallace. *Bastardii* is annually raided here by the gipsies, who sell the blossoms in the streets of Epsom, Dorking and Reigate.—J. E. Lousley.

Lilium pyrenaicum Gouan. Plentiful on banks between Mollond and South Molton, Devon, June 17, 1927. This handsome plant was in perfection at the date of my visit—hundreds of it—among Bracken and Male-fern, extending nearly a quarter of a mile. Stems 2 to 3 ft. high, some with six flowers. Introduced of course, but at a remote date. —Jas. W. White. Beautiful specimens of a much wanted plant.—J. E. Lousley.

Lilium Martagon L. Broken Dyke, W. Glos., v.c. 34, June 11, 1909.—W. A. Shoolbred, Comm. National Mus. of Wales. Poor specimens, but from a little known locality. It occurs in several other places besides Mickleham, Surrey. For example Monmouthshire and Gloucester have been mentioned (" Countryside," 1905, p. 344) ; and I believe the

plant still occurs near Woodmansterne, Surrey. Hooker and others have regarded it as a naturalized escape, but this is not the view taken in the last edition of the London Catalogue.—J. E. Lousley. If this conspicuous montane and subalpine plant had been known to grow wild in several English counties in the late 18th and early 19th century, more botanists would have mentioned it, whatever they considered its origin. I can find no earlier British record than 1837, Eng. Bot. Suppl. tab. 2799. "It . . . is remembered by the older people of the neighbourhood (Woodmanstone, Surrey) to have flourished truly wild in that locality for more than half a century." Factors against it being more than a denizen in England are that it has appeared occasionally in several counties in increasing numbers, and that it was never recorded from near Henbury, in well-worked country close to Bristol, until 1901, and when first seen by the late C. Bucknall in 1910 there were quite 200 plants in several patches and covering a considerable area. See White, Flora of Bristol, p. 585.—H. S. Thompson.

Potamogeton gramineus × *lucens* (*P. Zizii* M. et K.) Alt-Ausseer See, Stiria, ca. 700 m., 21 viii 1926.—Dr. K. Rechinger. Correct. But the reference to M. et K. is not correct, as in their Deutsch. Flora, 1823, the name occurs only in the Index. They named it "*P. heterophyllus* δ *latifolius*." And in 1824, Dr. Koch sent to De Candolle a set of specimens to show what they meant by the names in their Flora. A specimen is named "*P. heterophyllus* δ *latifolius* fl. nostr. ex Palatente. Mons. Koch 1824." The first to take up *Zizii* as a valid name was Roth. (Enum. Pl. Germ. 1, 531, 1827). But this was antedated by Berchtold and Presl in their Rostlin, 1, p. 19, (1821) under the name of *P. angustifolius*. This work was published in parts from 1819 to 1822, and the whole in 1823. It is written wholly in the Bohemian language.—A. Bennett.

Potamogeton densus L. In fluvio Fischa, prope Enzersdorf, Austria, Juni 13, 1926.—Karl Rechinger. Correct. This form is between the type and var. *rigidus* Opiz.—A. Bennett.

Cyperus fuscus Linn. Peaty ditch, Walton-in-Gordano, N. Somerset. Oct. 4, 1908.—C. Bucknall and Jas W. White.

Eleocharis acicularis Roem. and Schult. Canal Banks, Woking, Surrey, Aug. 27, 1927.—W. Biddiscombe. Correct. —A. Bennett.

Carex elata All. (C. *stricta* Good.) Burgenland, Austria, Zwischen Weiden und Podersdorf, May 13, 1926.—Dr. K. Rechinger. Correct as to plant ! No specimen is extant in Italy named by Allioni "*elata*," and it is not certain whether *stricta* or *acuta* is meant by the name. That being so Herr Kükenthal has adopted the name I gave it, viz. *C. Hudsonii*, in the Pflanzenreich by Engler.—A. Bennett. Of another gathering, of same date and practically the same locality, Mr. Bennett writes : *C. Hudsonii* A. Bennett. But tending towards *C. turfosa* Fries. Small for *Hudsonii* type !

Carex incurva Lightf. (No. 420). Bettyhill, Sutherland, August 5, 1927. H. W. Pugsley.

Carex divisa Hudson. (Ref. 1416). Near the Dunes, Littlehampton, W. Sussex, v.c. 13, May 20, 1927. Rather young, but when I visited the spot later, I found the grass, etc., mown.—E. C. Wallace. Correct.—A. Bennett.

Carex [*paradoxa* L.]. Burgenland, Austria ; Zwischen Weiden am See und Podersdorf, Mai. 13, 1926.—Dr. Karl Rechinger. Not *paradoxa* Willd. Nearer large *C. leporina* L. or possibly *C. disticha* Huds.—H. S. Thompson. Certainly not *paradoxa*. (There is no *paradoxa* of L.) It is too young to name, but is probably *C. intermedia* Good. (*C. disticha* Huds.)—A. Bennett.

Carex divulsa × *Pairaei* ? [678]. Wallington Park, W. Norfolk, June 10, 1926.—J. E. Little. Similar plants were distributed in 1924 to the Club, and (Report, p. 314, l. 39) a request was made for more material. Accordingly I sent roots to Mr. C. E. Salmon, who is growing them, and now send another set. Cf. also notes in W.E.C.R., 1919, p. 120, l. 42 on plants from Blackborough Priory, about 7 miles distant. Similar plants are also to be found on the Stow Bardolph side of the road, about a mile away (Det. C. E. Salmon).—J. E. Little. These specimens are certainly not *divulsa*, nor are they *Pairaei*. I think Mr. Little's naming may be accepted.—A. Bennett.

Carex canescens L. Austria Inferior . . . On granite. June 30, 1926.—Dr. Karl Rechinger. Too young for certainty, but probably correct.—A. Bennett.

Carex leporina L. Austria Inferior. In fossis turfosis prope Lanzegg, solo granitico, Juni 30, 1926.—Dr. Karl Rechinger.—Correct.—A. Bennett.

Carex Goodenowii Gay. Austria Inferior . . . in Torfmoor bei Lanzegg. Juni 30, 1926.—Dr. Karl Rechinger. Correct.—A. Bennett.

Carex capillaris Linn. Abundant near Cauldron Snout, Widdy Bank Fell, Upper Teesdale, Durham, July 15, 1927. —J. E. Lousley.

Carex nutans Host. Austria, Burgenland, Donnerskirchen, in paludosis versus Oggan, Mai 24, 1926.—K. H. Rechinger. I believe correct.—A. Bennett.

Carex secalina Wahlenb. Austria, Burgenland, in limosis subsalsis prope Tois (?) Juni 27, 1926.—Dr. Karl Rechinger. Correct.—A. Bennett.

Phalaris canariensis Linn. Gravel Pit, near Hayes, Kent, June 17, 1927. Leg. F. A. Swain. Comm. J. E. Lousley. Correct—A. Bennett.

Phalaris————. On a rubbish heap between Grays and Tilbury, Essex, Oct. 29, 1927.—I. A. Williams. *P. minor* Retz.—W. O. Howarth.

Alopecurus bulbosus Gouan (Ref. 1417) Saltings, Littlehampton, W. Sussex, v.c. 13, May 28, 1927. With *Juncus Gerardi* and *Agropyron* almost the sole constituent of the turf. —E. C. Wallace. Correct.—A. Bennett.

Agrostis alba var. — Austria, Burgenland ; . . . prope Tois Juni 27, 1926.—Dr. Karl Rechinger. *A. alba* L. b. *genuina* 2 *diffusa* Asch. and Graebn., = *A. diffusa* Host.—W. O. Howarth.

Apera Spica-venti Beauv. Oat-field, S. of Boldermere, Ockham, Surrey, Aug. 7, 1927.—D. G. Catcheside. Correct. —A. Bennett.

Deschampsia setacea Hack. (*Aira uliginosa*). Peaty pool on Horsell Common, Woking, Surrey [No date]. From the long sharp ligule with lacerated tip, and the capillary long leaves I take this to be the plant mentioned in Sowerby's Botany, and not far from the locality. Woking Common has long been covered with bricks and mortar.—W. Biddiscombe. Correct ; a very local species in the county.— C. E. Salmon. Correct.—A. Bennett. The authority is Hudson (Richt.), or *Aira uliginosa* Weihe.—W. O. Howarth.

Trisetum flavescens Beauv. var. *variegatum* Mert. et Koch. (Ref. 1418). Banstead Downs, Surrey, June 16, 1927.—E. C. Wallace. Yes.—W. O. Howarth.

Avena pubescens Huds. Near Headley, Surrey, May 19, 1927.—J. E. Lousley. Correct.—A. Bennett.

Sesleria coerulea Ard. Limestone rocks near Winch Bridge, Teesdale, Durham, July 3, 1927. Ref. Y 175. Too ripe to be certain, but I believe this to be var. *luteo-alba* Opiz.—J. E. Lousley. Is var. *luteo-alba* Opiz (1836)=var. *alba* Camus (1888)=var. *flavescens* D. Moore (1845).—A. Bennett.

Poa annua Linn. forma. (Ref. Y 125) Walltop near Ewell, Surrey, May 24, 1927.—J. E. Lousley. Probably only a starved form. States such as this ought to be tested under garden culture.—W. O. Howarth.

Glyceria rupestris E. S. Marshall. In a muddy creek, Grays, Essex, Oct. 29, 1927. These specimens have an acute ligule, as described by Boswell Syme, but Coste describes the ligule as "courte, obtuse."—I. A. Williams. Yes; =*Atropis procumbens* Curt. (Rcht.)—W. O. Howarth. Panicle very small for the species.—A. Bennett.

Festuca ————. (Ref. Y 143). Chalk rubble, Titsey Hill, Surrey, June 19, 1927.—J. E. Lousley. *F. ovina* L. sensu stricto, *F. ovina, vulgaris, genuina* Hack.—W. O. Howarth.

Bromus Schraderi Kunth = *B. unioloides*. Apparently well established on an old and overgrown rubbish heap between Grays and Tilbury, Essex, Oct. 19, 1927.—I A. Williams. Yes, but the name *B. unioloides* H. B. and K. has priority. It was originally described from Ecuador.—W. O. Howarth.

Agropyron pungens R. and S. var. *littorale* (Reichb.) Ref. 1419. Shingle, near Middleton, W. Sussex, v.c. 13, July 10, 1927.—E. C. Wallace. Yes, under *Triticum repens, eu-repens, litorale* Asch. and Graebn.—W. O. Howarth. I believe correct.—A. Bennett.

Cystopteris fragilis Bernh. On and below damp shady wall close to river Barle, above Simonsbath, Exmoor, W. Somerset, at about 1200 ft., July 16, 1927. Gathered

because at first many of the fronds seemed abnormal, but this species—like *C. alpina* on the Continent—is frequently polymorphic.—H. S. Thompson.

Azolla filiculoides Lam.. Pond, Caerleon, Monmouth, Oct. 5, 1927.—H. A. Hyde. Comm: National Mus. of Wales.

Chara [*delicatula* Agardh]. Stiria: In lacu Alt—Ausseer See Solo calcar. Alt. ca. 700 m. Sept. 11, 1926.—Dr. Karl Rechinger. *Chara aspera*, Willd. A few of the characteristic spherical root-bulbils present.—J. Groves.

Chara ————. Stiria: In lacu Augst See in Monte Loser prope Aussee, solo calcar. Alt ca. 1500 m. Sept. 1, 1926.—L. Rechinger. Apparently a sterile state of *Chara fragilis* Desv. Not in a satisfactory condition for determination.—J. Groves.

Chara ————. Upper pools of the Sand Sike, Widdy Bank Fell, Upper Teesdale, Durham, July 3, 1927. (Ref. Y 115).—J. E. Lousley. *Chara vulgaris* L. (*C. foetida* Braun).—J. Groves.

Chara ————. Pool by Widdy Bank Farm, Upper Teesdale, Durham, July 4, 1927. (Ref. Y 114). Extremely brittle material.—J. E. Lousley. *Chara vulgaris* L. (= *C. foetida* Braun), a well-marked form with prominent secondary cortical-cells, short incurved branchlets and developed spine-cells.—J. Groves.

Nitella [*flexilis* Agardh. var. *nidifica* Wallm.?] Pond on Burghfield Common, Berks., Aug. 1, 1927. Ref. Y 153. —J. E. Lousley. *Nitella translucens* Agardh.—J. Groves.

N.B.—*Salix Caprea*: Mr. Pugsley points out that "*caprea*" should have a capital, it being a substantive.

SUBSCRIPTIONS, 1927.

	s.	d.
Barton, W. C.	10	6
Bergens Museum	10	6
Bickham, S. H.	10	6
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White, J. W.	10	6
Williams, I. A.	10	6
Wolley-Dod, Lt. Col., A. H	10	6
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TREASURER'S BALANCE SHEET, 1927.

Receipts.	£	s.	d.
Balance in hand, December 31st, 1927 ...	14	0	11
Subscriptions for 1927	29	8	0
	£43	8	11

Expenditure.	£	s.	d.	£	s.	d.
Printing—						
Forty-third Annual Report (200 copies) 46 pages and wrapper	26	10	0			
Regulations (200 copies) 4 pages	1	11	6			
Card (and postage)		11	0			
				28	12	6
Working Expenses—						
Distributor	1	19	1			
Secretary: Envelopes and postage of Reports ...		13	6			
,, Envelopes and postage of Regulations ...		4	0			
,, Ordinary Postage ...		6	0			
				3	2	7
Balance in hand, Dec. 31st, 1927				11	13	10
				£43	8	11

31*st December*, 1927.

G. GOODE,
Hon. Treasurer.

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Vol. III., No. 12.

THE

FORTY-FIFTH ANNUAL REPORT

OF THE

WATSON

Botanical Exchange Club

1928—1929.

Referees:

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CAMBRIDGE:

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PRINTED BY R. I. SEVERS, SIDNEY STREET

1929

THE WATSON
Botanical Exchange Club

REPORT FOR 1928—29

List of Contributors.

	Sheets		Sheets
A. Bennett ...	... 32	H. W. Pugsley	... 40
W. Biddiscombe	... 54	Miss I. M. Roper	... 156
R. J. Burdon ...	... 64	C. E. Salmon ...	... 15
A. J. Crosfield ...	... 9	S. London Bot. Inst.	140
J. Fraser ...	... 90	H. S. Thompson	... 52
J. Groves ...	... 11	E. C. Wallace ...	... 476
L. B. Hall ...	... 76	J. W. White ...	... 143
J. E. Little ...	... 259	I. A. Williams ...	... 36
J. E. Lousley ...	... 195	A. H. Wolley-Dod	... 35
Nat. Mus. of Wales	... 59		
		Total	1942

Seed packets: J. E. Little 14, E. C. Wallace 38.

From the above summary it will be seen that most members have sent larger contributions than last year. This is probably due to the fine summer of 1928. The absence of Continental plants no doubt reduced our total below that of the previous year.

I thank all the members who lightened my work by sending neatly prepared and labelled plants, and who carefully included contents lists and spare labels. The majority of specimens were well prepared and neatly labelled. Some sheets did not carry enough material, or were provided with scrappy illegible labels.

The complete gatherings of the critical plants were sent to the Referees as last year, so members will know that the plants they have received have all been seen by authorities. Some of the critical genera, especially Mentha, were well represented; others less so. One would like to have seen

more Rubi, Hieracia, Potamogetons and Carices. It is to be regretted that the Charophyta were unrepresented.

As in past years we are greatly indebted to the Club Referees for their valued help, and to the following botanists we are grateful for notes and opinions :—E. G. Baker, A. Bennett, C. E. Britton, Dr. Eric Drabble, J. Fraser (for his careful notes on the Mints and Willows), J. Groves, Mrs. E. S. Gregory, W. O. Howarth, L. V. Lester-Garland, J. E. Little, J. E. Lousley, W. H. Pearsall, Miss I. M. Roper, A. E. Wade, J. W. White, A. J. Wilmott and Lt.-Col. A. H. Wolley-Dod.

E. C. WALLACE,
Distributor.

Sutton,
Surrey.
March, 1929.

We are indebted to Mr. E. C. Wallace not only for the able way in which he managed the Distribution, but for contributing by far the largest parcel of specimens, many of which appear to have been of considerable interest. Mr. Wallace has kindly agreed to act as Distributor again next winter, and he will be glad to receive parcels by December 1st, 1929, at 2, Strathearn Road, Sutton, Surrey.

Mr. Little has been prevented by a most unfortunate accident from sending more notes. A slip on ice early in February resulted in a strained shoulder, and writing became a painful undertaking. All members will wish him a complete recovery.

The Club is in need of a few fresh members, particularly from Ireland, Scotland, Wales, and the north of England.

Our member, Dr. Rolf Nordhagen, professor at the Avdeling for systematisk botanik, Bergens Museum, will be particularly glad to receive English marsh plants and Alpine species from Wales and Scotland. He has been informed by the Secretary that the latter should be gathered in very small quantity, and some species not at all.

Grateful as we are to our helpers, the time has come to remind several that it is not necessary to print in these Reports long descriptions of certain plants of no great obscurity, nor even to mention *some* of their salient points which can be found in most of the British Floras. The blue pencil has been used a little more freely this year; a secondary reason being that the Club's balance-in-hand is rather less than for some years.

Some Corrections to the Last Report.

P. 423, line 22.—For Jarhb. *read* Jahrb.
P. 428, line 9.—For radicle *read* radical.
P. 434, line 3.—For patch *read* plant.
P. 442, last line but six.—For neutrally *read* ventrally.
P. 450, line 16.—After " first seen " *add* in a pasture at Hillsley, Glos.
Balance Sheet, last line.—For December 31st, 1927 *read* December 31st, 1926.

H. Stuart Thompson,
April, 1929. *Hon. Sec.*

Thalictrum dunense Dum. [Z 26]. Knocke-sur-mer Belgium, July 13, 1928.—J. E. Lousley. Correct.—A. Bennett. This seems exactly *T. minus* var. *maritimum* Syme, which is the plant primarily intended by Linnaeus as *T. minus*. The original specimens of *T. dunense* Dumort. are large and not exactly identical with the commonest form found on our British dunes. It is therefore preferable to use Syme's name until the whole of our forms have been correlated with Continental material.—A. J. Wilmott.

Ranunculus Drouetii F. Schultz. [Z 32]. Muddy ditch near Bognor, West Sussex, June 1928.—J. E. Lousley. Yes, J. Groves. May be this, but my material is quite inadequate for stable determination.—W. H. Pearsall.

Ranunculus [*sphaerospermus* Hiern. Z 39]. Near West Barnes Level Crossing, Raynes Park, Surrey, June 23, 1928. Finding a plant so named in a friend's herbarium, I went to the spot to look for it myself. The hairy carpels and largish flowers certainly point to this species, but the determination seems doubtful, so I send it for opinions. The small quantity, and bad quality of this plant prevented my taking more material.—J. E. Lousley. I should say *R. Drouetii*. *R. sphaerospermus* as I understand it has larger flowers and long peduncles.—J. Groves. Not this but *R. heterophyllus* var. *submersus* Bab.—W. H. Pearsall.

Ranunculus ——— Burgh Common, Fleggburgh, Norfolk, July 9, 1928.—R. J. Burdon. *R. peltatus*, Schrank. It seems a pity this pretty form was not " floated out " so as to show to advantage. Batrachian Ranunculi will repay such treatment,

and are much easier to manage than many aquatics.—J. Groves. Weak *R. peltatus*.—W. H. Pearsall.

Ranunculus Baudotii Godr. Pond on Charlton Common, West Glouc., June 25, 1928. The locality is some miles from the tidal Severn, on high ground where one would not expect to find a plant that thrives in brackish ditches and the saltings of our estuaries. Considered to be typical *Baudotii* by Mr. W. H. Pearsall.—Jas. W. White. Yes, like all Mr. White's specimens, well selected and carefully prepared; a model which might well be followed by collectors of these difficult plants.—J. Groves.

Fumaria Boraei Jord. Det. H. W. Pugsley. Garden, Rectory, North Chapel, W. Sussex, Aug. 22, 1928.—R. J. Burdon and J. E. Little.

Four single sheets of *Fumaria* from Larne, Co. Antrim, Aug. 1928, W. R. Sherrin, were named by Mr. Pugsley respectively *F. officinalis* L., *F. micrantha* Lej., *F. Bastardii* Bor. and *F. purpurea* Pugsl.

Fumaria parviflora Lam. [764] typica Pugsl. (Cirrhose petioles). Great Wymondley, Herts., 28 June, 1928.—J. E. Little. Prostrate and diffuse, up to 18 inches long, clinging to other growth by twisted petioles and then ascending. The upper and lower petals are nearly concolorous throughout: only the lateral petals are tipped with dark purple. The main colour is pallid. The keels are green, and in the upper petal there is a pair of slightly coloured spots below the spathulate tip. As Mr. Pugsley remarks, the colour of the petals 'runs' when they are fading. It seems probable that the colour on the upper petal is due to 'running' of the closely appressed lateral ones. Bracts not quite equalling the pedicels. Fruit sharply apiculate.—J. E. Little. The typical form of the species. A good set.—H. W. Pugsley.

Arabis scabra All. New Red Sandstone walls, near Bridgwater, West Somerset, v.c. 5, April 8 and May 9, 1928 (after drought). Established from seed sown about 1913 by Mr. Henry Corder, and now abundant. Also sown by him on limestone rocks of Cannington Park, about two miles away. See *Journ. Bot.* 1928, p. 152.—H. S. Thompson.

Erophila leptophylla Jord. Wall, Avebury, North Wilts, v.c. 7, April 15, 1928. The characters agree with the descrip-

tion given in the key to the sub-species of *Draba verna* in Rouy et Foucaud. See W.B.E.C. Rept., Vol. II, 466.—Ida M. Roper. I should be content to leave these under *E. verna* restricted; excluding *E. majuscula*, *E. stenocarpa* and *E. praecox*.—J. E. Little. Does not agree with Jordan's description of his *leptophylla* in leaf or silicle. From descriptions given in *Journ. Bot.*, 1928, 234, and from specimens named by Dr. O. E. Schultz, I believe Miss Roper's plant comes under *E. Boerhaavii* Dum. In *E. verna* E. Meyer, the silicles have longer pedicels, and contain more seeds.—C. E. Salmon.

Viola [*calcarea* Greg.] Wood, Wraxall, N. Somerset, v.c. 6, May 2, June 29, 1928. The flowers in most of the specimens are very small and suggest being intermediate between type and the later cleistogamous ones. *V. dumetorum* produces similar intermediate blooms.—Ida M. Roper. This is one of the small forms of *hirta* (not *calcarea*, certainly) in the semi-cleistogamous stage, through which all violets pass gradually, until they arrive at the stage where petals fail them. Of *calcarea* characters this fails in the very perceptible spur and in the *non-conduplicate folding* of the later leaves.—E. S. Gregory.

Viola agrestis Jord. [Z 21]. Corn stubble, near Headley, Surrey, Oct. 9, 1927.—J. E. Lousley. Yes; some of the plants are flowering in the early unbranched state.—E. Drabble.

Viola ——— [1265]. Field by Banstead Downs, Surrey, Aug. 23, 1928.—E. C. Wallace. *V. subtilis* Jord. (*V. Déséglisei* f. *subtilis* [Jord.]). An unusually spreading form.—E. Drabble. I make this to be *V. agrestis* Jord. from its copious pubescence, and the foliaceous stipules with crenate middle lobe. Specimens with roots and lower leaves would have improved the tall ones for identification.—J. Fraser.

Viola ——— Chorley Wood, Herts., v.c. 20, July 28, 1928.—W. R. Sherrin. *V. subtilis* Jord. (= *V. Déséglisei* f. *subtilis*). —E. Drabble.

Viola lutea Huds. f. *Pesneaui* Lloyd. Santon Warren, S. Norfolk, June 11, 1926.—E. M. Reynolds and J. E. Little. Det. E. Drabble. Cf. *Journ. Bot.*, 1927, 219. Yes, beautiful *Pesneaui*, well selected and prepared. In cultivation this Santon Warren plant is indistinguishable from *V. lutea* Huds. f. *amoena* Henslow from Derbyshire. I have grown

the two side by side for two years.—E. Drabble. I agree. There are now many ways of writing the above name, but as specimens from different localities are examined it becomes evident that this maritime Pansy is an ecad of *V. lutea*. My sheet from N. Aberdeen contains a specimen with a yellow lip where this Norfolk one is white. Some of the middle lobes of the stipules have two crenatures, instead of being entire as described in the *Journal of Botany*, but I have proved this in seedings from N. Aberdeen specimens.—J. Fraser.

Viola Pesneaui Lloyd and Foucaud. Sand dunes, Portrush, Co. Antrim, v.c. 39 I, Aug. 27, 1928.—Ida M. Roper. Yes, *V. Curtisii* f. *Pesnauii* = *V. Pesnauii* Lloyd and Foucaud. The specimens showing the twiggy subterranean development are typical.—E. Drabble. Of Mr. Sherrin's gathering on same date Dr. Drabble remarks that most of these specimens are lateral branches only.

Polygala vulgaris L. [716] f. *oxyptera* auct. brit? Chalk Down, Pegsdon, Beds., v.c. 30, June 27, 1927.—J. E. Little. A small prostrate plant on poor soil on a field some years derelict and going down to grass. Branches slightly flexuous. Stems of racemes shortly pubescent. Upper leaves narrowly lanceolate, not quite linear. Colour range of *P. vulgaris*, commonly blue or pink, or washed-out shades of these colours. Racemes very floriferous, the flowers and points often quite crowded. Fruiting inner sepals variable, from obovate, cuneate below, to elliptical shortly mucronate, equalling or exceeding the capsules, but narrower. Capsules quadrate with cuneate base, or suborbicular. Perhaps only a form of open ground. In the hedgerows bordering the field, more typical *P. vulgaris* is found.—J. E. Little. Excellent *P. dubia* Bellynck (= *oxyptera* auct. angl.) in good condition for naming. The crowded racemes (mentioned by the collector) are often a feature of this plant. A. W. Bennett arranged this interesting segregate as a *variety* of *P. vulgaris*; Mr. Little would apparently go further and reduce it to a " forma ". —C. E. Salmon.

Dianthus prolifer Linn. On shingle, in fair abundance by the Lagoon, Pagham, West Sussex, June, 1928. [Ref. Z 7]. —J. E. Lousley. Camb. Brit. Flora (1920) revives the name *Tunica prolifer* Scop. [1772] because the loose and scarious epicalyx removes it from the genus *Dianthus*.—I. M. Roper.

Silene anglica L. Black Down, W. Sussex, Aug. 20, 1928. —R. J. Burdon and J. E. Little.

Silene integripetala Bory et Chaub. Weed in garden at 5, Madingley Road, Cambridge, Nov. and Dec., 1928.—A. J. Crosfield. The specimens of *S. integripetala* at the Cambridge Botany School are from Greece. How it reached Cambridge I cannot tell. I saw it first in a friend's garden at Histon, about two miles from this house, Oct. 3, 1925. How it got into our rosebed I cannot say. It has come up two years in succession.—A. J. Crosfield, *in lit.*

Stellaria glauca With. var. *viridis Fr.* By Walton Bridge, Middlesex, July 1, 1928.—E. C. Wallace. See *Journ. Bot.*, 1910, 223. No flowers seen at end of July. I found it in flower near Amberley on Aug. 19.—E. C. Wallace. Quite correct. My specimens have green leaves, somewhat similar to those of *S. Holostea* or *S. graminea* without the cilia on the margins of both, and without the bristly hairs on the lower side of the nerve of the former.—J. Fraser.

Arenaria tenuifolia L. Castle Acre, Norfolk, June 28, 1928.—R. J. Burdon.

Sagina maritima G. Don. [Ref. 1266]. Amongst moss and stones on the Chesil Beach, near Wyke Regis, Dorset, June 6, 1928.—E. C. Wallace. Good specimens of the less frequent state which might be well labelled "forma *stricta* Fries." to indicate this upright form. The more common plant has a more "cushiony" habit with less erect branches and peduncles.—C. E. Salmon.

Elatine Hexandra DC. Studland Heath, Dorset, Sept. 15, 1928. First record for Dosret.—L. B. Hall.

Malva moschata L. var. *latisecta* Celak. Filton Meads, Bristol, W. Glos., July 7, 1928.—Ida M. Roper.

Malva microcarpa Desf. (= *M. parviflora* L. var. *microcarpa* Lose. Avonmouth Docks, W. Gloster, v.c. 34, Oct 31, 1928.—Ida M. Roper.

Erodium cicutarium L'Hérit. [748]. Great Wymondley, Herts., Sept. and Oct., 1928.—J. E. Little. Robust, up to 3 feet, prostrate ascending. Very hairy but eglandular. Peduncles about 7-flowered. Fl. rose-purple. Petals subequal, oval, unspotted, about $1\frac{1}{4}$ as long as the sepals. Anthers purple. Stigma purple. Barren filaments gradually

dilated to a broadish base. Spires of beak of carpel 6—7. Beak and fruit about 38 mm.—J. E. Little. *Erodium triviale* Jord.—C. E. Salmon and E. G. Baker.

Erodium cicutarium var. *triviale* Jord. Near Christchurch, Hants., Sept., 1926.—W. R. Sherrin and L. B. Hall.

Erodium cicutarium L'Hérit. [767]. Wangford Warren, N. Suffolk, July 30, 1928.—J. E. Little. Prostrate, often closely appressed to the ground. This may be partly due to continued nibbling by rabbits, but is the habit of some *Erodia* (e.g. in the radical leaves of *E. Botrys*) to guard against desiccation. Stems 3/18 in., very glandular, especially on the leaf margins. Leaflets very finely divided, not quite to midrib. Leaf-segments inclined to ob-lanceolate, rather abruptly pointed. Peduncles bearing up to three flowers. Beak short (15 mm.). Spires few (up to four). Stamens with barren filaments only gradually and slightly dilated at the base. Two forms differing I believe only in colour of the flowers are about equally common. Those plants which have purple corollas have also purple anthers, and stigmas of a somewhat paler purple. Those with white corollas have pallid anthers and stigmas. I observed the same colour variations upon Cavenham Heath, and near Tuddenham, both in the same county.—J. E. Little. This interesting plant will, I hope, be gathered again and careful note taken whether the petals are unequal or subequal, spotted or not, colour of pollen, etc. According to Clavaud's arrangement, there seems little doubt that Mr. Little's plant would fall under his section " fossum "—for the carpels lack a furrow around the apical pit and the leaf-segments are finely divided, practically to the mid-rib. Under " fossum ", Clavaud has *A. arenarium* (= *pilosum* Bor.), with three segregates, and *B. laxum*. I am of the opinion that this Wangford plant may come under his *b. vestitum*, of the former. Although the leaf cutting strongly recalls *E. glutinosum* Dum., these plants have not the habit, sub-dentate filament, etc., of that species (see *Journ. Bot.*, 1920, 123).—C. E. Salmon.

Erodium moschatum L'Hérit. [762]. Wool alien. Gt. Wymondley, Herts., Sept. and Oct., 1928.—J. E. Little. No scent of musk detected, although the plants are very glandular. The subapical carpellary pits converge at a somewhat more acute angle than in *E. cicutarium* and the furrows beneath them are accordingly broader. Both the pits and

the furrows are glandular. Hooker (Student's Flora) mentions the former, but not the latter point.—J. E. Little.

Erodium Botrys Bert. [765]. Wool-alien. Gt. Wymondley, Herts., Sept. and Oct., 1928.—J. E. Little. The carpels have 2-3 (Coste says 2-4) concentric furrows beneath the sub-apical pits. The pedicels in the young state are markedly swollen at their base (where in fruit the pedicel is deflexed), and at the tip (where the pedicel is curved upwards). In the rosette stage of the plant the leaves are so closely pressed back upon the ground, to avoid desiccation, that when the root is lifted they curve downwards upon the tap-root.—J. E. Little.

Erodium cygnorum Nees? [752] Wool-alien. Gt. Wymondley, Herts., Sept. and Oct. 1928.—J. E. Little. Sepals mucronate. Bracteoles ovate, acute, ciliate. Fl. blue. Petals about 1—1½ as long as sepals, obovate, with ciliate claw. Anthers yellow, stigmas greenish yellow. Filaments all broadly lanceolate at the base. Mericarps with two eglandular subapical pits, each subtended by a single distinct furrow. Beak up to 70 mm.—J. E. Little. This agrees with specimens so named in the Welsh National Herbarium.—A. E. Wade. A native of Australia, where it is a very valuable fodder plant.—I. M. Roper.

Ilex Aquifolium L. var. *laurifolia* Lej. South edge of Beckhampstead Common, Herts., Feb. 25, 1928. Completely spineless; another holly tree growing a few yards away had partially spiny leaves but was much like this one in general appearance.—I. A. Williams.

Acer campestre L. var. *palmatifidum* Tausch. Hedge near Reservoir, Tring, Herts., Oct. 5, 1928.—I. A. Williams. I presume correct, having no description. The leaves are more deeply palmatifid than four gatherings of mine, with the middle lobe of the five more prolonged. The leaves generally are also larger.—J. Fraser. Yes, so I should name it.—C. E. Salmon.

Genista anglica Linn. Lyde Green, Westerleigh, West Gloucester. Fl. May 16, Ft. June 6, 1928.—Jas. W. White.

Medicago hispida Gaertn. aggr. [761]. Gt. Wymondley, Herts., Sept. and Oct., 1928. In this case a wood-alien, due to the employment of shoddy waste as manure.—J. E. Little. This is an aggregate name covering *M. denticulata*

Willd., *M. apiculata* Willd. and others. D'Urban divides it into var. *microcarpa* with pods having $1\frac{1}{2}$ to $3\frac{1}{2}$ turns and a diameter inside the spines of $1\frac{3}{4}$—$2\frac{3}{4}$ lines, which covers the two above named, and var. *macrocarpa* having pods of 3-6 turns and a diameter of 3-$4\frac{1}{2}$ lines covering four varieties. Mr. Little's plant seems to come nearest the description of var. *lappacea* (D.C.) which may be the *M. lappacea* Desr. of L. C. XI, No. 388. Medicagos are difficult to determine from descriptions, and require to be compared with types.—A. H. Wolley-Dod.

Medicago laciniata All. [750]. Wool-alien. Gt. Wymondley, Herts., Sept. and Oct., 1928.—J. E. Little. Wings shorter than keel, and keel than standard. Fruit globose. The trivial is apparently taken from a state of the leaflet in which it is broken up into narrow segments round the nerves. One or two plants which I gathered showed this tendency slightly. "Les folioles du *M. laciniata* sont des plus variables ; ainsi, et quelquefois sur le même pied, on observe toutes les transitions entre les folioles obovales ou oblongues dentées et les folioles linéares profondément incisées ou pinnatifides." — E. Cosson et L. Kralik, Rapport Voyage Bot. en Algérie, 1857. There is in Hb. Mus. Brit. an extreme example of this laciniation of the leaves. Leg. L. Kralik, Sfax, 1854, No. 204.—J. E. Little. I think this is correctly named but have only key characters to guide me.—A. H. Wolley-Dod.

Medicago praecox D.C. [749]. Wool-alien. Gt. Wymondley, Herts., Sept. and Oct., 1928.—J. E. Little.

Medicago minima Desr. (wool-alien in this case). Gt. Wymondley, Herts., Sept. and Oct. 1928.—J. E. Little.

Lathyrus Nissolia L. Mitcham Common, Surrey, June 26 1927. The plants are rather small owing to a hard soil and short turf. This annual species does not appear in consecutive years in the same spot, though abundant when it does occur.—J. Fraser.

Lathyrus maritimus Bigel. On the Chesil Beach, Dorset, Aug. 10, 1928.—J. W. White. Nicely dried specimens with flowers and fruit.—J. Fraser.

Rubus fuscus W. and N. Fide Focke. Habitat in silva Leigh Wood vocata in comitatu Somersetiensi. Augusti die xv, 1928.—J. W. White. Yes, as a form with narrow

panicle and obovate leaflets it should be marked *fuscus* Whe. and N. *f.*—H. J. Riddelsdell.

Rubus———. [Ref. 46]. Wood near Chipstead, Surrey, July, 12, 1928. Petals whitish pink. Sepals erect in flower, becoming reflexed. White stamens longer than the reddish styles.—E. C. Wallace. *R. infecundus* Rog. which Sudre (wrongly I believe) identifies with *R. rufescens* Lefr. and Muell. Both description and figure as given in Sudre show that the two are not identical, though examination of specimens show a close affinity.—H. J. Riddelsdell.

Rubus———. [Ref. 32]. Banstead Downs, Surrey, July 7, 1927.—E. C. Wallace. This is part of what has hitherto been referred to *R. argenteus* f. *glandulosa*. It has also, I believe, been named *Gelertii*. But it is neither. It is a widespread form which I hope to describe and name, for I cannot find anything to which it corresponds. The rachis and clothing (or want of it !) is a remarkable feature, and brings it near Rogers' *podophyllus*, but it is not that.—H. J. Riddelsdell.

Alchemilla Salmoniana Jaquet. Origin Cumberland, 1925. Hort. Reigate, May 1927 and 1928. See *Journ. Bot.*, 1926, 280. —C. E. Salmon. The outstanding features of this new species seems to me to be the general villosity of the stems as in *A. pratensis* but glabrous towards the top ; the general pilosity of the leaves of that species, but more copiously hairy towards the periphery of the leaf beneath ; the glabrous urceoles and sepals, except that the latter are more or less ciliate round the apex, recalling the true leaves and bracts of which they are a homologue.—J. Fraser.

Rosa hibernica Templ. No. 2074. Lorton, Cumberland, July 29, 1928.—A. H. Wolley-Dod. I sought for this rose this year hoping that I might find a clue to its precise parentage, but am unable to do so, though in all probability it is one of the varieties of *R. dumetorum* Thuill. I saw no form of *R. coriifolia* in the neighbourhood, but that is no bar to that being a possible parent, in fact the shortness of the peduncles on some of the specimens are in favour of it.—A. H. Wolley-Dod.

Rosa———. [Ref. Z 33]. Hedgebank by Pebblecombe, Surrey, Sept. 2, 1928.—J. E. Lousley. This agrees very well with *R. canina* var. *spuria* (Pug.). I should until recently

have called it var. *insignis*, but now think *spuria* is a better name, since the true *insignis* Déségl. et Rip. should have very decidedly biserrate leaflets ; thus *spuria* is a new name only, not a new variety for Britain. The specimens sent are from a very slightly prickly form, which is not a normal feature of the variety ; its very slight biserration and absence of glands take Mr. Lousley's gathering very much towards the Lutetianae, *spuria* being ranked under the Transitoriae.—A. H. Wolley-Dod.

Rosa canina L. var. *verticillacantha* Baker. Dolley's Farm, Chobham, Surrey, July, Aug., 1928.—W. Biddiscombe. This is very good *verticillacantha* in most respects, even the tendency of the prickles to aggregate around the base of the leaf, but its strongly rising sepals are most unusual. I feel sure that Keller, and even some of our older botanists would refer it to the Subcaninae, but I should not do so myself. If it can go under *R. glauca* at all, from which, in my opinion its styles exclude it, it must be as var. *subcristata* f. *adenophora* W.-Dod (*R. fugax* Gren.), but I should want stronger evidence than these show before I passed this as a *glauca* variety, that species being very rare in Surrey.—A. H. Wolley-Dod. Mr. Biddiscombe writes later that specimens were taken from the same bush for three or four years, and the glandular acicles on the peduncles and fruits were weaker last summer than usual, on some pieces they may be almost absent. Though an abnormal form Col. Wolley-Dod has decided it is as named.

Rosa dumetorum Thuill., var. *urbica* Baker. By pond, Filton Meads, Bristol, W. Gloucester., v.c 34, July 8, Sept.11, 1928. Flowers pale pink.—Ida M. Roper. I agree with the name, but there is plenty of room for doubt whether the earlier and later gathered specimens came from the same bush. The earlier ones all have much larger clusters of flowers, and their prevailing form of terminal leaflet has a more narrowed base and somewhat more acuminate apex than the later ones. The differences will be obvious on most, but not all of the sheets. Both may go under var. *urbica*.—A. H. Wolley-Dod.

Rosa dumetorum Thuill var. *calophylla* Rouy. This seems nearer to *calophylla* than *Gabrielis*, though it is difficult to decide. Dolley's Farm, Chobham, Surrey, Aug. 1928.—W. Biddiscombe. Towards var. *calophylla* certainly, from its small size, but I doubt it. The fruit of that variety should be very decidedly globose, and its leaflets much less pubescent.

This is one of those frequent forms which are just between *R. dumetorum* and *R. tomentella* var. *obtusifolia*, and I think it is nearer the latter, but quite off type.—A. H. Wolley-Dod.

Rosa rubiginosa Linn. f. *Corstorphinae* W.-Dod. No. 2073 (A) and (B). Aberfeldy, Mid Perth, Aug. 20, 1928.—Leg. J. G. Glassford. I am sending twenty sheets of this rose which was found by Mr. Glassford in Perthshire. I have made up the parcel in pairs of sheets, the labels being marked (A) and (B). They all came from the same clump of three bushes, but unfortunately they were mixed up in the packing so I am unable to say for certain which bush each specimen came from. But the branches sent by Mr. Glassford were large enough to cut up, and showed considerable variation in the size of the leaflets on the same branch. I have marked the most typical examples (A) and those less typical, though quite acceptable for the form, I have marked (B). In a few specimens, (B) is very little inferior to (A).—A. H. Wolley-Dod.

Rosa micrantha Sm., var. *hystrix* Baker. Rewell Wood, Arundel, W. Sussex, v.c. 13, Oct. 2, 1928.—Ida M. Roper. This is *R. micrantha* Sm., but not var. *hystrix*, which is a small leafleted variety. Some of the leaflets on Miss Roper's specimens are almost large enough for var. *operta*. The only departure from typical *micrantha* is the wedge-shaped base of the terminal leaflet. Keller has placed similar varieties under *R. agrestis* Savi, in spite of their hispid peduncles, thus making the shape of the leaflets of paramount importance, with which I hesitate to agree.—A. H. Wolley-Dod.

Crataegus monogyna Jacq. var. *microphylla* Druce. Symonds Yat, W. Glos., v.c. 34, June 24, 1914.—W. A. Shoolbred. Comm : Dept. of Botany, National Museum of Wales.

Drosera anglica × *rotundifolia* (*D. obovata* Mert. and Koch. Moorland near Allt na h'Uamka, W. Inverness, v.c. 97, July 31, 1926.—W. A. Shoolbred. Comm : Dept. of Botany, National Museum of Wales.

Callitriche intermedia Hoffm. [1267]. Pond at Lynch, near Wyke Regis, Dorset, June 14, 1928—E. C. Wallace. A very interesting form of *Callitriche*, the first I have seen from our Islands. Dr. Williams in his Prod. Fl. Brit. Part 9, 509 (1912) records it from " Loch Alsh, a sea-inlet on the coast of Ross-shire (G. C. Druce) 1881." This is in the extreme south-west corner of v.c. 105, E. Ross. Williams divided the

species into two varieties, "A. *rivularis*, B. *lacustris*." This plant he names as var. *lacustris* f. *callophylla* Kuetz. = *C. autumnalis* var. *lacustris* f. *callophylla* Kuetzing in Reich. Icon. Fl. Criticae, cent. IX, p. 44, fig. 1208 (1831). The upper leaves, which form a rosette at the apex, much resemble those of *C. deflexa* A. Braun, t. 4, fig. 4b, in Hegelmaier Monog. Gatt. Callitriche, p. 58 (1864).—A. Bennett.

Circaea lutetiana L., var. *cordifolia* Lasch. Garden weed, Clifton, Bristol, W. Glos., v.c. 34, July 13, 1928.—Ida M. Roper. Yes, very good *cordifolia*.—E. Drabble. I would have no hestitation in accepting this gathering for the variety . . . .—J. Fraser.

Galium verum L. var. *maritimum* D.C. Dunes, Great Yarmouth, July 7, 1928.—R. J. Burdon. No, it comes under the type.—E. C. Wallace. Yes, = var. *littorale* Bréb. The underground offshoots well developed.—I. M. Roper. Var. *maritimum* D.C. (var. *littorale* Brébisson) is a much smaller plant with small few-flowered cymes. It is, however, almost certainly a mere state ; and intermediates, of which Preb. Burdon's plant is one, occur.—E. Drabble. I understand that De Candolle described as var. *maritimum* a sand-dune plant, with small leaves, few flowered panicle, and prostrate habit. This Yarmouth plant—at least my specimen—by no means agrees with this. It appears to have had the fleshy leaves characteristic of a maritime habitat, but in all other respects agrees with type G. *verum*, Linn.—J. E. Lousley.

Valerianella eriocarpa Desv. [1268] det. H. W. Pugsley. Rocks below Rufus Castle, Portland, Dorset, June 12, 1928. —E. C. Wallace. This has very pronounced acute teeth to the calyx-limb of fruit, and the fruit itself is practically glabrous. This glabrous state of *V. eriocarpa* I have not seen before and must, I think, be rare. It is, however, mentioned that it occasionally occurs thus both here and on the Continent.—C. E. Salmon.

Aster Tripolium L., Seedlings. In countless thousands on the mud of the new Salt Marsh, Berrow Flats, N. Somerset, Aug. 30, 1928.—H. S. Thompson. The cotyledons and the first leaf are very characteristic of a Composite, and being gathered in mud they are most likely correct.—J. Fraser. *Aster Tripolium* is one of the dominant plants of this marsh.—H. S. T.

Gnaphalium supinum Linn. Ben Lawers, Mid Perth, v.c 88, Aug. 7, 1906.—Coll. C. P. Hurst. Comm. S. London Bot. Inst.

Gnaphalium luteo-album L. Burnham Overy, W. Norfolk, v.c. 28, Aug. 18, 1922.—J. E. Little.

Pulicaria vulgaris Gaertn. Woolbeding Common, Sussex, Aug. 20, 1928.—R. J. Burdon and J. E. Little. Yes. Much rarer in Surrey than old records show, this being due to the drainage of the wet places on commons, etc.—J. Fraser.

Matricaria inodora var. Island Magee, Co. Antrim, v.c. I. 39, Aug. 1928.—W. R. Sherrin. I should name this plant *Matricaria inodora* L. var. *maritima* (L.) Wahl. The only way to treat the numerous maritime forms of *M. inodora* is to divide them into rough groups. This is not altogether satisfactory, because what you have to deal with is a more or less uninterrupted series ; but if they are to be classified at all, nothing else can be done. In the *Journal of Botany*, 1921, pp. 170, 173, I suggested three groups : (1) var. *maritima*, (2) var. *salina* D.C., (3) var. *phœocephala* Rupprecht. This plant is not var. *salina* which has close-cut pinnules to the leaves, nor is it var. *phœocephala* which has broad dark borders to the phyllaries. It belongs in my opinion to the group of forms which are characteristic of the coasts of Scotland and do not come far south. But the specimen sent me seems to have come from an exceptionally luxuriant plant, and the internodes are unusually long.—L. V. Lester Garland.

Artemisia maritima Linn. var. *gallica* (Willd.). Banks of the Arun, Littlehampton, W. Sussex, Sept. 23, 1928.—E. C. Wallace. I agree. The stems and branches as well as the capitula are erect and stiff. Coste, in Fl. de la France, maintains it as a species. Smith, in *Eng. Bot.*, made it a variety, but thought it good enough for a species.—J. Fraser.

Senecio sylvaticus L. var. *auriculatus* Meyer. On the peat of Shapwick Moor, N. Somerset, Aug., 20, 1928.—Jas. W. White.

Senecio spathulaefolius D.C. var. *maritimus* Syme. Near South Stack Lighthouse, Anglesey, June 20, 1905.—A. O. Hume. Comm. S. London Bot. Inst.

Silybum Marianum Gaertn. Pentire Head, Newquay, Cornwall, June 15, 1902.—C. C. Vigurs. Comm. S. London Bot. Inst.

Centaurea———. [Ref. 1269]. Roadside near Amberley, W. Sussex, Aug. 19, 1928.—E. C. Wallace. This gathering consists of plants that are abundant on some of the chalk hills and downs of the South of England. I have gathered similar plants on the slopes of Amberley Mount (perhaps Mr. Wallace's locality), Rackham Hill, and adjoining downs, and a good deal of identical material reached me from Mr. C. C. Lacaita who extensively collected on the downs by Arundel Park and in the Isle of Wight. These plants attract attention when growing by reason of the handsome radiant heads. The rayed plants are usually very plentiful at the localities mentioned, but with them occur plants similar in all characters except that the enlarged outer florets are not developed. In the past collectors have given much attention to these radiant forms, and endeavours have been made to identify them with the plants described by French authors under the names of *C. decipiens* Thuill., *C. serotina* Bor., *C. pratensis* Thuill., and *C. Debeauxii* G. and G. They are, of course, the *C. nigra* var. *decipiens* (Thuill.) of Babington and others. Apart from the radiant heads, the specimens are marked by the narrow phyllary-appendages, mostly, at least in the pressed state, not wholly covering the phyllaries. In this feature the characters of *C. Debeauxii* and *C. microptilon* are recalled, but, it is my invariable experience, that with such plants as those under notice, others grow that differ only in the closely-crowded phyllaries.

The Continental collection at South Kensington contains many French Centaureas from the herbarium of the late Mons. E. Gadeceau, a student of the genus, which are identical with plants to be found on our chalk downs. Gadeceau's plants are named either *C. decipiens* Lloyd or *C. decipiens* Thuill. There is no doubt that Lloyd's description of *C. decipiens* in the *Flore de L'Ouest de la France* covers such plants as Mr. Wallace's, but, unfortunately, Thuillier's name is of doubtful application. The original description is not helpful, but appears to indicate an ally of *C. Jacea* Linn. According to Briquet, the examples of *C. decipiens* in Thuiller's herbarium are identical with original specimens of *C. serotina* Bor. They consist of three large branched plants with narrow leaves, the upper becoming almost linear, more or less tomentose, the capitula medium-sized, appendages regularly pectinate in the lower three-quarters of the pericline. He regarded the specimens as allied to *C. pratensis* Thuill. My own view of

these downland plants is that they are a variation of *C. nemoralis* Jord., in which, apart from the radiant florets, the phyllary-appendages are less numerous than usual, and that they always occur with plants possessing capitula with the usual crowded appendages. I would name them *C. nemoralis* Jord. forma *radiata*.—C. E. Britton.

Hieracium———. [Ref. 1270]. Roadside ditch, Ockham Common, Surrey, July 22, 1928.—E. C. Wallace. I think this belongs to *H. trichocaulon* Dahlst.—H. W. Pugsley.

Hieracium———. [Ref. Z 56]. Winch Bridge, Upper Teesdale, Durham, July, 1927.—J. E. Lousley. I should be inclined to put this under *H. lucidulum* Ley.—A. E. Wade. *H. lucidulum* Ley, with heads rather larger than usual.—H. W. Pugsley.

Hieracium maculatum Sm. No. 424. Cult. Wimbledon; Orig. Reigate, Surrey, June 1928.—H. W. Pugsley. It agrees with what I have collected near Merstham, Surrey, and have seen in gardens under this name.—J. Fraser.

Hieracium lucidulum Ley. Tintern Road, Black Cliff, Monmouth, v.c. 35, May 31, 1920.—W. A. Schoolbred. Comm. Dept. of Botany, National Museum of Wales. This is not *H. lucidulum*, but falls within the group *H. serratifrons* Almq. It seems nearest to *H. grandidens* Dahlst.—H. W. Pugsley.

Hieracium gothicum Fr. f. *basifolium* Lindeb. Spey-side, Crathie, S. Aberdeen, v.c. 92, Aug. 2, 1916.—W. A. Shoolbred. Comm. Dept of Botany, National Museum of Wales. I think a form of *H. gothicum* Fr.—H. W. Pugsley.

Hieracium umbellatum Linn. [Ref. Z 41]. Ashstead Common, Surrey, Sept. 15, 1928.—J. E. Lousley. Correct. —H. W. Pugsley.

Hieracium aurantiacum L. Cult. Wimbledon; origin, Yorkshire (naturalised), June, 1928. No. 425. This now little-known plant is sent with *H. brunneo-croceum* to illustrate their points of difference, as described at length in *Journ. Bot.*, lix, pp. 60-69 (1921). Since writing that paper I have seen wild plants of the group near St. Anton, in the Tyrol, and in Canton Graubunden, Switzerland. This experience tends to confirm my opinion that there are at least two species in the group, distinct not only morphologically but also in the nature of their habitats. At St. Anton a tall, broad-

leaved form, with intensely red flowers, grows in the sub-alpine meadows which are cut for hay. When brought into my garden, its flowers became paler in colour, but its foliage more luxuriant. This plant is almost identical with these specimens of *H. aurantiacum* L., which was probably first obtained from a similar locality, where the peculiarly bright colour of its flowers would attract attention.

In alpine pastures at higher altitudes near St. Anton quite different forms occur, some with red and some with orange flowers, but all with the lingulate leaves of *H. brunneo-croceum.* These are usually relatively dwarf plants in the wild state, but one form that I cultivated in the garden quickly developed the very rampant habit of *H. brunneo-croceum,* to which it was clearly closely allied.

Last summer in Graubunden I saw hawkweeds of this group in several localities, but always in extremely small quantity. They were all in rough, alpine pastures, sometimes among scattered bush. These plants were tall and very slender; one, with bright red flowers and fairly broad leaves, would come under *H. aurantiacum* L., but the rest, with more orange flowers, were nearer to *H. brunneo-croceum.* None of them exactly matched those from St. Anton, and I have not yet attempted to identify them with Naegeli and Peter's sub-species.—H. W. Pugsley.

Hieracium brunneo-croceum Pugsl. Cult. Wimbledon; origin Surrey (naturalised), June, 1928. No. 426.—H. W. Pugsley.

Hypochœris maculata Linn. Kynance Cove, Cornwall, v.c. 1, July 12, 1902.—A. O. Hume. Comm. S. London Bot. Inst.

Lactuca saligna Linn. Shingles east of Eastbourne, E. Sussex, v.c. 14, Sept. 2, 1907.—A. O. Hume. Comm. S. London Bot. Inst. Correctly named. I have it from Kent. In English Botany the leaves are figured and described as entire; but it is a polymorphic species, with the leaves lobed in a variety of ways.—J. Fraser.

Scorzonera humilis L. Marshy field near Ridge Farm, Stoborough, Dorset, June 9, 1928. I have sent four sheets of this as I see several members want it.—E. C. Wallace.

Lobelia Dortmanna Linn. Lake Ogwen, Bethesda, Carnarvon, July 19, 1905.—A. O. Hume. Comm. S. London Bot. Inst.

Wahlenbergia hederacea Reichb. Boggy meadow, Earlswood, Monmouthshire, v.c. 35, Sept. 2, 1918.—Mr. Whitley. Comm. Nat. Museum of Wales. The distribution in the British Isles and on the Continent of this "Atlantic" or Western species is so interesting that a detailed study of it might be profitable. Apparently it extends here and there from Portugal and Dalmatia on the Adriatic to Denmark and N.W. Germany. But it is absent from Italy (where there are other species) and strangely so from Switzerland. In Ireland S. and S.E. it is rare, but gets as far north as Co. Dublin. In Britain it skips the Lake District and the West Lowlands to reappear in Ayr, Renfrew and Argyle. One is inclined to suggest that the distribution of this elegant little plant is influenced by other factors than climate and habitat merely. Its absence from N. Somerset, except the southern peat moor, is more remarkable than its total absence from N. Wilts.—H. S. Thompson.

Symphytum cæruleum Petitm. Cult. in the garden of Bristol University from a root procured from Germany by the late Prof. Leipner, June, 1928.—Jas. W. White.

Symphytum ibericum Stev. By pond at Woodhill, Send, Surrey, June, 1928. I call this *S. ibericum* by what I have seen of Mr. White's specimens, though it has been named by the Kew authorities *S. orientale*.—W. Biddiscombe. Yes. See W.E.B.C. Rep. 1917-18, p. 67.—I. M. Roper. I agree. Much larger than plants cultivated at Bristol, but the luxuriance may be due to its wet situation. If not planted at Woodhill this is probably its first recorded occurrence in a semi-naturalized state in this country. A native of the Caucasian region. Bucknall in his *Revision of the Genus Symphytum*, p. 494, explains that the name *S. grandiflorum* D.C., although so inappropriate, has priority. Steven discovered the plant in 1805, and called it *S. ibericum*, but it does not appear that he published a description until 1851. In the meantime De Candolle in the *Prodromus* (1846) had described it as *S. grandiflorum* from specimens received from Tiflis.—Jas. W. White.

Myosotis———. By Walton Bridge, Middlesex, v.c. 21, July 1, 1928.—E. C. Wallace. I take this to be the plant which Du Mortier, in his "Bouquet du Littoral Belge," p. 32 (1869), named *Myosotis coronaria* var. *Reichenbachiana*.

Du Mortier in the above mentioned work includes under

M. coronaria all the forms previously placed under *M. palustris* Hill which possess erect stems and short leafless rhizomes. He further segregated *M. coronaria* into the vars. *glabrata, rosulata, Reichenbachiana* and *strigulosa*. The latter is the same as *M. strigulosa* Reichb. The var. *Reichenbachiana* only differs from var. *strigulosa* in having the hairs of the stem spreading instead of adpressed.

I propose in a forthcoming account of *M. palustris* and varieties to place all the above mentioned varieties of *M. coronaria* Du Mort. under *M. palustris* Hill.—A. E. Wade.

Mimulus moschatus Dougl. (No musky scent) Linch, W. Sussex, Aug. 20, 1928. Luxuriant, up to 3 ft.—R. J. Burdon and J. E. Little.

Veronica agrestis L. Allotments near Tring Station, Hertfordshire, Oct. 5, 1928. Flowers small, and white with a blue tinge.—I. A. Williams. I agree. It is rare in Surrey. I have seen it only in allotments at Richmond and in our garden, in both of which it is spontaneous.—J. Fraser. Yes, *agrestis* ; var. *Garckiana* Fournier, isn't it ? —E. Drabble. I agree. The clothing of capsule is very different from that found in *V. polita*.—C. E. Salmon.

Veronica scutellata L. var. *villosa* Schum. [1271]. Amongst Typha in bed of dried up pond near Blackbrook, Dorking, Surrey, Sept. 8, 1928. Much more luxuriant than my specimens from Headley, due to the better conditions under which these plants grew. The type occurred sparingly with the variety.—E. C. Wallace. Yes ; unusually densely glandular even for var. *villosa*.—E. Drabble. Quite correct ; var. *villosa* Schum. (var. *hirsuta* Webber, var. *pubescens* Hook. fil.). —J. Fraser. Schumacher described this variety as having villous leaves as well as stem, but I should place these plants under his name.—C. E. Salmon.

Euphrasia———. In a meadow between Talkin Tarn and Brampton, Cumberland, July 3, 1928.—I. A. Williams. *E. borealis*.—W. H. Pearsall. *E. borealis* Wettst., unusually slender and pale green.—E. Drabble. A weak, unusually branched form of *E. borealis*, or perhaps more nearly *E. borealis* × *nemorosa*.—H. W. Pugsley.

Euphrasia———. [1272]. Ride in wood on clay soil near Lodge Farm, Holmwood, Surrey, Sept. 2, 1928.—E. C. Wallace. *E. nemorosa* Pers.—E. Drabble and W. H. Pearsall.

This is typical *E. nemorosa*, as defined by Wettstein, a tall, much-branched plant, with quite small, white flowers. The author to be cited for this species is M. J. Löhr, Fl. Coblentz, 128 (1838). Persoon's name, taken up by Wettstein, is a varietal name only, and that of Martius (Prod. Fl. Mosquensis, 107 (1917), adopted by Townsend, represents a different Russian plant that has not been identified, and must be held invalid.—H. W. Pugsley.

Euphrasia———. [1273]. White Downs, Surrey, July 31, 1927.—E. C. Wallace. *E. nemorosa* Pers. var. *ciliata* Drabble. —E. Drabble and W. H. Pearsall. *E. nemorosa* Löhr. Less typical than No. 1272.—H. W. Pugsley.

Euphrasia Kerneri Wettst. (*fide* W. H. Pearsall). Sand dunes, Rosses Point, Co. Sligo, Sept. 3, 1928.—Ida M. Roper. Yes, this is the plant we have generally accepted as *E.Kerneri* in this country.—E. Drabble. My specimen of this consists of three rather short much-branched plants, such as often grow on sand dunes, and one taller example, with long internodes and but little branched. It is nothing like *E. Kerneri* Wettst. and is probably a form of hybrid origin, *E. nemorosa* crossed with *E. brevipila* or possibly *E. borealis*, the larger flowers being derived from the second parent.—H. W. Pugsley.

Rhinanthus minor Ehrh. Meadow near Little Pant-y-Cottin, Shirenewton, Monmouth, June 14, 1917.—W. A. Shoolbred. Comm. Dept. of Botany, National Museum of Wales. I agree, in spite of the *occasional* pairs of intercalary leaves. See Report 1927-8, p. 440.—C. E. Salmon.

Melampyrum sylvaticum Linn. [Ref. Y 50]. Near Winch Bridge, Upper Teesdale, Durham, July 3, 1927. With *M. pratense* var. *hians* Druce, from which it is difficult to separate when dried.—J. E. Lousley. My single sheet of specimens contained 14 examples of this local plant. Three or four would be ample to represent this distinct species, known in this locality since 1805.—C. E. Salmon.

Orobanche Hederae Duby. On Ivy on rocks, West Weare, Portland, Dorset, June 11, 1928.—E. C. Wallace.

Utricularia major Schmidel (*U. neglecta* Lehm.). Ditch near Freshwater Bay, Isle of Wight, July, 1927.—J. Groves.

Mentha longifolia Huds. var. *pulverulenta* Strail. [Ref. Z 104]. Agreed to by Mr. Fraser. Near Tadworth Station,

on commonland, Surrey, Sept. 2, 1928.—J. E. Lousley. The character is the mealy pubescence on the upper surface, consisting of the bulbous basal joints of the hairs. Fewer of these white joints are seen beneath, most of the hairs being of full length. First collected in Kent by the late E. S. Marshall.—J. Fraser.

× *Mentha hircina* (Hull) Fraser var. *hirsuta* Fraser. Cult. Kew, from The Dour, New Aberdour, North Aberdeen, Aug. 28, 1926, and Aug. 9, 1927. Both gatherings are from the same original stock in the garden since 1917. Some have long and narrow leaves, while others have shorter and broader leaves, and vary in this way from season to season. The var. *hirsuta* is far more hairy than Hull's plant, practically tomentose on the under side of the leaves. I have a sheet of *Mentha hircina* Hull, collected by Stonestreet some time after 1689, and the leaves are green and subglabrous above, and hairy beneath, as described. The Dour is a rapid, hilly stream, and I found the var. *hirsuta* at four stations on its banks in 1927, having explored it more extensively than in 1917.—J. Fraser.

Mentha spicata Linn. [Ref. Z 105]. *Teste* J. Fraser. St. Georges Hill, Weybridge, Surrey, Aug. 19, 1928.—J. E. Lousley.

Mentha piperita Linn. [Ref. 3]. Gomshall Marsh, Surrey, Sept. 15, 1928.—E. C. Wallace. Splendidly developed spikes of *M. piperita* Linn. var. *subcordata* Fraser, not the typical M. piperita. If Sole had had equally fine spikes of his *M. vulgaris*, he would not have classed it with *M. aquatica* as a capitate mint. The specimens from Gomshall Marsh have not markedly subcordate leaves, but under more watery conditions, or under cultivation, they would have been more distinctly so.—J. Fraser.

Mentha aquatica Linn. [Ref. Z 108]. By Kennet Canal, Burghfield, Berks, Oct. 1, 1928.—J. E. Lousley. Yes; *M. aquatica* L. (*hirsuta* Huds.). Leaves short, mostly obtuse, rounded or subcordate at the base. Heads or verticils 1-7.—J. Fraser.

Mentha aquatica Linn. [Ref. 804]. Ditch near Gadbrook Farm, Betchworth, Surrey, Sept. 18, 1927.—E. C. Wallace. Rather a broad-leaved form of *M. aquatica* Linn. var. *major* Sole. The leaves are less cuneate at the base than the more

characteristic forms, but they are more acute or acuminate at the apex than *M. aquatica* Linn. (*hirsuta* Huds., var. *minor* Sole). Such forms occur, and may be the result of crossing. The type has the leaves mostly subcordate at the base, and usually rounded at the apex.—J. Fraser.

Mentha aquatica Linn. var. *major* Sole. [Ref. Z 106]. *Teste* J. Fraser. "Not very typical examples, but dwarf, with slender stems and small leaves, due to crowding and inadequate moisture." Stanmore Common, Middlesex, Sept. 10, 1928.—J. E. Lousley.

× *Mentha verticillata* Linn. [Ref. 12]. By Brockham Bridge, Surrey, Sept. 1, 1928.—E. C. Wallace. One of the small-leaved forms of the hybrid, namely × *M. verticillata* L. var. *adulterina* Briq. It is a subspicate variety, and the main axis as well as the branches end in a verticil. I have specimens 3—4 ins. high, and distinctly spicate, collected in dry soil in a dry season. Such specimens are distinctly more hairy than the Brockham Bridge specimens. Most Mints can throw off their clothing when growing in damp situations.—J. Fraser.

× *Mentha verticillata* Linn. [Ref. 807]. Ditch near Betchworth, Surrey, Sept. 18, 1927.—E. C. Wallace. Name it × *M. verticillata* Linn. var. *paludosa* (Sole) and it will be right. I have it from Brockham. It is a very polymorphic Mint, appearing to be a different variety in different seasons on the same spot. It had only 1-3 densely compacted verticils in the dry season of 1921 ; I cultivated it and got 6-9 verticils ; and the wild one some years later in the same spot got exactly like Sole's *M. paludosa*. Now I have got 15 sheets from a wide area on the clay in Surrey, and though those in ditches and hedges may never become spicate I consider they are one and the same thing. The calyx teeth are short for × *M. verticillata* and from a broad triangular base they suddenly narrow to a slender point. I erred with Briquet in naming the variety, and now ask collectors to change the name from var. *congesta* Fraser to var. *paludosa* (Sole). The most constant character is the elliptic leaves, broadest a little below the middle. Unfortunately there are few or none of the main stem leaves on these specimens. The bracts under the verticils suddenly get very small till they get completely hidden in spicate states, but appear again when the corolla drops.—J. Fraser.

× *Mentha verticillata* Linn. [Ref. 13]. Ditch, Betchets Green, Holmwood, Surrey, Sept. 2, 1928.—E. C. Wallace. This is much nearer Sole's figure of *M. paludosa* than the Betchworth specimens, and nearer the most characteristic state of the variety, which is not constant. The leaves of the South Holmwood specimens are excellent, but can be larger ; and the whole plant can be much more hairy in open situations and dry seasons. It is good × *M. verticillata* Linn. var. *paludosa* (Sole).—J. Fraser.

× *Mentha rubra* Sm. var. *raripila* Briq. [Ref. 17]. Laneside south of Dorking, Surrey, Sept. 8, 1928.—E. C. Wallace. Quite correct. Stems, petioles, and leaves on both sides thinly hairy. The smaller bracts are generally ovate, acuminate, seldom rounded and cuspidate. I have seen no other variety in the area of clay soil south of Dorking.—J. Fraser.

× *Mentha gentilis* Linn. [Ref. Z 107]. *Teste* J. Fraser. Stanmore Common, Middlesex, Sept. 10, 1928.—J. E. Lousley. The upper part of the stem is rather more hairy than usual, but this is variable according to the environment. The type is more hairy than the two variations.—J. Fraser. I am rather surprised that this should be put down as "*M. gentilis* teste J. Fraser." My sheet does not at all resemble *M. gentilis*. Can there be mixture?.—J. E. Little.

Mentha arvensis Linn. [Ref. 22]. Meadow by Houghton Bridge, W. Sussex, Aug. 19, 1928.—E. C. Wallace. Quite correct. Calyx teeth rather deep, acute or acuminate, pedicels glabrous or subglabrous. Leaves elliptic. The stems and leaves are thinly hairy owing to the plants being amongst rank vegetation.—J. Fraser.

Mentha arvensis Linn. [Ref. 806]. Effingham Common, Surrey, Sept. 11, 1927.—E. C. Wallace. What I name *M. arvensis* Linn. f. *hirtipes* Fraser, but not extreme. Some of the pedicels have many hairs, but others only few.—J. Fraser.

Mentha arvensis Linn. f. *angustifolia* Fraser. [Ref. Z 103]. *Teste* J. Fraser. Cutt Mill-pond, Puttenham, Surrey, Aug. 8, 1928.—J. E. Lousley.

Thymus britannicus Ronn. [Ref. 1274]. Chalky field near Headley, Surrey, June 25, 1927.—E. C. Wallace. Also Nos. 1275 and 1276 from Banstead, Surrey, July 2, 1927.—E. C. Wallace. These appear to be what Ronniger means by

his *Thymus britannicus* (B.E.C. Report, 1923, pp. 230, 237) which is said to have the flowering shoot goniotrichous (two surfaces hairy and two glabrous) and leaves hirsute on the surface ; but for me this is only one of the many forms of the variable *T. Serpyllum* L. and certainly not a good species.—A. B. Jackson.

Teucrium Scorodonia var. *nov. acrotomum* L. B. Hall. See *Journal of Botany*, 1928 p. 299. Origin Exmoor. Somerset, 1922.—L.B.H. Grown in garden at Parkstone, Dorset, gathered Aug. 5, 1925 (plant B), and Aug, 5, 1923 (plant A).—L. B. Hall. One sheet only sent.

Plantago Coronopus L. var. *transiens* Beguinot. Littlehampton Common, W. Sussex, v.c. 13, Oct. 3, 1928.—Ida M. Roper.

Chenopodium viride Linn. Border of cultivation at Clevedon North Somerset, Oct. 12, 1928.—J. W. White. Seems to me correct, though usually regarded as a variety and within *C. album* L. var. *viride* (L.) The leaves have occasionally two large teeth below the middle, the rest being entire, and without meal or nearly so.—J. Fraser. This is more like *C. album* var. *paganum* Reichb. = var. *virescens* Wahlb. than var. *intergerrimum* Gray (Camb. Brit. Flora) = *C. viride* L. *partim*.—J. E. Little.

Chenopodium opulifolium Schrader. [743]. Waste-heap, Bethel Lane, Hitchin, Herts., Oct., Nov., Dec., 1928.—J. E. Little. A character noted in *Bab. Manual*, Edn. IX (1904) by Messrs. Groves, viz.—" leaves with usually slightly mucronate teeth " is observable in these plants. Ten seeds arranged in a contiguous row measure 11.87 mm. ; giving an average of 1.18 mm. Coste (Fl. Fr.) gives 1.25 mm. He describes them as ' ternes ' : to me they appear somewhat shining, and finely punctulate, as in *C. album*. Like the latter they have a rather prominent radicle, so that the horizontal outline is irregular. Ascherson and Graebner describe the edge as ' stumpf.—randig ', but the difference between this and ' ziemlich scharf ' for *C. album* is only slight. Within the limits of my observation, *C. opulifolium* is very late in flower and fruit. Dr. E. Drabble (in litt. Nov. 15, 1928) writes :—" Much of our English Chenopodium *opulifolium* seems to be var. *mucronulatum* G. Beck.".—J. E. Little. Yes, var. *mucronulatum* G. Beck.—E. Drabble.

Chenopodium ficifolium Sm. [No. 427]. Wimbledon Park, Surrey, Oct. 9, 1928. This plant and *C. polyspermum* were formerly almost as abundant about Wimbledon as *C. album*, but have now been nearly extirpated by building.—H. W. Pugsley.

Atriplex glabriuscula Edm. (Fruits). Aldeburgh, E. Suffolk, Sept. 17, 1928.—K. D. Little. Comm. J. E. Little.

Polygonum heterophyllum Lindman. [Ref. Z 28]. Eastfields, Mitcham, Surrey, Oct. 15, 1928. In these specimens there is not as much contrast between the two types of leaves as in the more typical plant.—J. E. Lousley.

Polygonum aequale Lindman. [Ref. Z 19]. Eastfields, Mitcham, Surrey, Oct. 15, 1927. Not appearing quite typical, but the lax growth is largely due to the late date at which the plants were collected.—J. E. Lousley.

Polygonum aequale Lind. × *P. heterophyllum* Lind. [Ref. Z 58]. Intermediate in flowers, fruit, and leaves, but with the influence of the last named parent predominant. Leg. ipse. Sandbanks, Poole, Dorset, Oct. 1927.—J. E. Lousley.

Polygonum minus Huds. Ditch near Amberley Castle, W. Sussex, Aug. 19, 1928.—E. C. Wallace. I agree. The narrowly lanceolate-accuminate leaves are ciliolate, with fringed stipules that clasp the stem tightly. The small sepals have some small glands at the base, and the jet black nutlets are very glossy.—J. Fraser.

Polygonum nodosum Pers. [1277]. Ditch by Amberley Castle, W. Sussex, Aug, 19, 1928.—E. C. Wallace. Very nice specimens, beautifully prepared.—C. E. Salmon.

Polygonum———. [Ref. 1278]. Edge of dried-up pond near Blackbrook, Dorking, Surrey, Sept. 8, 1928. Is this a hybrid? I cannot put it to either *P. Persicaria*, *P. nodosum*, or *P. lapathifolium*.—E. C. Wallace. Mr. Wallace suggests this may be a hybrid. If one compares the nuts of (1) *P. Persicaria*, (2) *lapathifolium*, and (3) *nodosum* (*maculatum*), it will be seen that in (1) the nut is circa $2\frac{1}{2}$ mm. long × 2 mm. broad, is almost black, ovate, and tapers to apex without any obvious shoulder and equals or slightly exceeds perianth. In (2) the nut is larger, c. 3 mm. long × $2\frac{3}{4}$ mm. broad, and thus almost orbicular with a very obvious shoulder, almost black and equals or exceeds perianth. In (3) the nut is just

under 2 mm. long × 1½ mm. broad, ovate and tapering with a *slight* shoulder, brown, and falls short of perianth. In Mr. Wallace's plants we find the nuts almost black, circa 2½ mm. long × 2 mm. broad. Taking into account also the look of sterility, few really ripe nuts formed, one cannot help coming to the conclusion that his plants are probably *P. nodosum* × *lapathifolium*, leaning towards the first named. As the perianths and peduncles are glandular, etc., I see no signs of *Persicaria* in the specimens.—C. E. Salmon. This is *P. nodosum* Persoon f. *incanum* Asch. (f. *salicifolium* of Camb. Brit. Fl.; *P. incanum* Willd.; *P. salicifolium* Gray, etc., etc.). The nomenclature is involved, but the plant is clear enough. —E. Drabble. *P. nodosum* Pers.—I. M. Roper. Is not this *P. nodosum* Pers. and not a hybrid, which would show more infertility?—A. H. Wolley-Dod.

Alnus glutinosa Gaertn., f. *microcarpa* (Fedde) et f. *microphylla* (Uechtr.). Wallington Park, W. Norfolk, Sept. 23, 1927.—J. E. Little.

Salix triandra Linn. var *concolor* Anderss. f. *latifolia* Anderss. Near Egham, Surrey, catkins April 10, 1927; leaves July 29, 1928. The specimens were collected from a very old bush in a hedge, and the leaves are not nearly so large or broad as they can be, but they are mostly rounded at the base and not tapered nor cuneate at the base as in the type. They are green on both sides, as implied by Andersson's varietal name concolor. I have seven varieties of the species, ♂ and ♀ of each, all occurring in Surrey.—J. Fraser.

Salix fragilis Linn. [Ref. Z 31]. Wandle Bank, Mitcham, Surrey. Flowers April 6, 1928, leaves and fruit May 10, 1927. The now discarded var. *britannica* F. B. White E. F. Linton considers a barren state of the type (*British Willows*, p. 14), and Mr. Fraser says "there is little if anything" in it (Intro. to 11th edition London Catalogue, p. 3).—J. E. Lousley. Quite correct. It has the irregular serration of the leaves. The ovaries are subulate, gradually narrowed to the short style. I have only seen five male trees in the south-east of Surrey and they have all been destroyed by the building of houses and bungalows. That would account for the barren condition of the fruit and the slender ovaries.—J. Fraser.

Salix alba var. *vitellina* (L.) ♂ [741]. Putteridge Park, Herts., ap. 18, July 9, 1928.—Coll. M. Brown, Comm. J. E. Little. I agree. The specimens seem to have been gathered

from an old tree or bush, and may be placed with those that are moderately hairy. Stooled bushes are usually, if not always subglabrous. Old trees may be subglabrous or quite densely hairy. E. F. Linton does not seem to have seen the ♂ of this variety; I have seen only one tree in Middlesex, and one bush in Surrey. I congratulate the finder.—J. Fraser.

Salix alba var. *vitellina* (L.) ♂ [S 742]. Planted left bank of R. Hiz, Hitchin, Herts., April 20, July 19, 1928.—J. E. Little. I agree. The yellow bark of the young twigs, the long catkins, and their long bracteoles during anthesis are good evidence of var. *vitellina*. I have for more than twenty years entertained the belief that this is a hybrid between *S. alba* and *S. fragilis*. The serratures of the leaves are intermediate, and the ovaries are much wider at the base than in *S. fragilis*. The latter in exposure often has yellow or red bark in the autumn and winter.—J. Fraser.

Salix alba var. *vitellina* (L.) × *triandra*? ♂ [549]. (See B.E.C.R., 1923, 404.) April 23, Sept. 17, 1928. A planted tree, Fairfield, Hitchin, Herts. Of 100 flowers examined 68 had two stamens, 12 had three, and 28 had four stamens. But the proportions are variable.—J. E. Little. Mr. J. Fraser (in litt.) writes "All the forms of the hybrid (i.e. *S. alba* × *triandra*) have leaves suddenly narrowed to the point, which is not long." If the above naming be ruled out, the variable number of stamens has still to be accounted for. The flowers with four stamens generally have the filaments connate at the base in pairs. Nectaries two.—J. E. Little. I agree. The leaves are better than those of my sheet from the 1923 gathering, as they are larger, and take more after the lanceolate-elliptic shape of a typical *S. triandra*. The catkins are not so long as those of Surrey specimens of the ordinary *S. alba* var. *vitellina* (L.) I have them ♂ and ♀, with catkins two and a half to five inches long from trees and bushes, so that these seem to be shortened by the influence of *S. triandra*. I commend Mr. Little for his great assiduity in working out the number of stamens, which furnish valuable evidence.—J. Fraser.

Salix pruinosa Wendland. Cult. Kew, Surrey. Catkins Mar. 17, leaves Sept. 29, 1928. Not a British species, but it is the *S. acutifolia* Willd., recorded in Hooker and Arnott's *British Flora* (1855), from Cleveland and Wensleydale,

Yorkshire, and in other British floras. Only three species belong to the group Pruinosae, to which the above belongs. It is often planted for its ornamental purple or violet bark, and its early catkins. The young catkins are so attractive by reason of their dense covering of silky white hairs, that not one is allowed to develop its stamens, if this Willow is planted in an open position anywhere near London. The pruinose or frosted bark, and the rostrate flower-buds on the current year's shoots are peculiar.—J. Fraser.

Salix purpurea L. f. *Lambertiana* Sm. Sandy bank, Berrow, N. Somerset, April and Aug., 1916. Unfortunately the tree was destroyed before more catkins could be obtained. If evidence of *viminalis* be detected in this plant it must go, I believe, to f. *Forbyana* of *S. rubra* Huds.—Jas. W. White. It is *Salix purpurea* × *viminalis* (*rubra* Hudson. f. *Forbyana* Sm.). No form of *S. purpurea* has such a long style as this has. The stigmas are ovate, horizontal acute. *S. purpurea* Linn. f. *Lambertiana* Sm. has a distinct style, but it is short and the stigmas are *orbicular*. The leafy shoots have evidently been cut from an old bush in a dry situation, and the leaves are short. If this had been f. *Lambertiana*, the leaves would have been obovate, cuneate, because in an adult state of the bush. I found only one stipule, and that was lanceolate and stalked, typical of f. *Forbyana*. Normally *S. purpurea* has no stipules, but it has short ones on stooled bushes.—J. Fraser.

Salix———. [Ref. 1279]. Marshy copse near Evershed's Rough, Abinger, Surrey, April 3 and July 31, 1927.—E. C. Wallace. The general appearance of this is that of a small-leaved form of *S. caprea* ; the primordial or spring-leaves are entire, but the few summer-leaves are finely serrate throughout the gathering. The tomentum of *S. caprea* has been greatly reduced, and some leaves are subglabrous. The stigmas are subsessile. All these characters, except the entire primordial leaves, belong to *S. aurita*, and I accordingly name the plant *S. aurita* × *caprea* (*capreola* J. Kern.).—.J Fraser.

Salix aurita × *cinerea* ♀ [572]. West Mill, Hitchin, Herts. Leaves Oct. 3, 1927 and Sept. 11, 1928 ; fruits May 15, 1928. (See B.E.C.R., 1927, 588.)—J. E. Little. S. *aurita* is seen in the short leaves rounded at the apex, with a short twisted point, copious, bluish pubescence beneath, and the very

short styles. *S. cinerea* shows itself in the reduced pubescence of the leaves and the dark brown copiously pubescent, one year old shoots. The striations under the bark are copious, as is frequently the case in the hybrid.—J. Fraser.

Salix repens Linn. [Ref. Z 40]. With matted hairs on upper surface of leaves. Hybrid? Moist ground in sand-dunes, Hardelot Plage, Pas de Calais, France, May 31, 1928. —J. E. Lousley. It is *Salix repens* Linn. f. *parvifolia* Sm. It is the most silky form of the plant I have seen, but the forms of *S. repens* vary in this respect, according to situation and environment, such as dry and exposed conditions. Form *parvifolia* is most nearly allied to f. *ascendens* Sm. (not to the type), being shorter and elliptic. The silky white hairs are too sleek, straight and glossy for a hybrid.—J. Fraser.

Populus balsamifera L. (The Balsam Poplar). By stream, Derriaghy, near Belfast, Co. Antrim, v.c. 39 I., Aug. 26, 1928. A remarkable looking tree, unlike a Poplar in appearance. It was growing in a wild locality and the tree was certainly old, with the trunk much arched and bent. The narrow non-cordate leaves of the young branches agree with the description of f. *P. balsamifera*, but the numerous leaves on the lower branches decrease in size and shape, and do not suggest a Poplar but rather those of a *Prunus*, as though the two had been grafted.—Ida M. Roper. I agree. It is a native of N. America where it is widely distributed and plentiful; said to be introduced in 1692. It may readily be recognised by its ovate, acuminate leaves, whitish beneath and much netted there. Buds covered by a viscid, very fragrant gum, which scent the air for some distance away, and for some weeks while the leaves are being developed in spring. It is the Balsam Poplar or Tacamahac Tree.—J. Fraser. No doubt of cultivated origin. The authority should be Duroi and not Linnaeus who according to Rehder (*Man. Cult. Trees*, p. 92) gave the name *balsamifera* to quite a different tree, viz. the N. American Cottonwood (*P. monilifera* Aiton).—A. B. Jackson.

Stratiotes Aloides L. Burgh St. Margaret, Norfolk, July 3 and 12, 1928.—R. J. Burdon.

Polygonatum officinale All. [Ref. Z 24]. Hardelot Plage, Pas de Calais, France, May 21, 1928. The calcium carbonate which favours the growth of this plant doubtless came from

the shells of marine mollusca carried slightly inland by Sea Gulls.—J. E. Lousley.

Fritillaria Meleagris Linn. [Ref. Z 55]. Burghfield, Berks., April 4, 1923. The plant is most abundant in this field where it is annually raided by hawkers who sell the blooms, and perhaps roots, in the streets of Reading. It will be observed that I collected this gathering over five years ago—before I realised that the collection of such plants, even when in plenty, was vandalism, and before I joined either of the Exchange Clubs.—J. E. Lousley.

Juncus compressus Jacq. Surrey side of Thames at Walton Bridge, Middlesex, July 28, 1928.—E. C. Wallace. Yes; good examples.—C. E. Salmon. Excellent examples of this species. This is H. C. Watson's locality; but then called Surrey, but the old boundary seems displaced in the River.—A. Bennett. Correctly named. Mr. Wallace localises his specimens in Middlesex, but on the Surrey side of the river. That also is correct, for the old bed of the Thames is represented by a ditch, and the high ground is the ancient escarpment of the river, on the Surrey side of the bridge.—J. Fraser.

Juncus maritimus Lam. var. nov. *congestus*, L. B. Hall. Studland Heath, Dorset, Oct. 2, 1928. See *Journal of Botany*, p. 361, 1928. Only one sheet sent.—L. B. Hall.

Juncus pygmaeus Rich. Kynance Downs, Lizard, Cornwall, June 30, 1902.—A. O. Hume. Comm. S. London Bot. Inst.

Acorus Calamus Linn. By Walton Bridge, Middlesex, July 1, 1928.—E. C. Wallace.

Potamogeton crispus L. Small pond in Woodcote Park, Epsom, Surrey, June 22, 1928.—E. C. Wallace and M. Bell. Excellent examples of this species.—W. H. Pearsall. The leaves are serrate, and the plant is named *P. crispus* L. var. *serratus* (Huds.). Apparently it is fairly frequent in Surrey, as I have seen it in other localities of the county.—J. Fraser.

Potamogeton panormitanus Biv. Bern. Poaka Beck Reservoir, near Dalton-in-Furness, N. Lancs., Sept., 1919.—Coll. W. H. Pearsall; Comm. A. Bennett.

Zannichellia palustris L. [1280]. Pond, near Lynch, Wyke Regis, Dorset, June 14, 1928.—E. C. Wallace. Correct. —A. Bennett. Yes.—W. H. Pearsall. Appears to me to be var. *repens* Bœnn, as my specimen has rooted in many places.—J. Fraser.

Eriocaulon septangulare With. Recess, Connemara, Co. Galway, Sept. 17, 1902.—Miss Joyce. Comm. S. London Bot. Inst.

Eleocharis uniglumis Schultes. Near New Milton, Hants., July 20, 1928.—L. B. Hall. Beautiful examples. This species is carefully described from fresh Hampshire specimens by Townsend in his Flora.—C. E. Salmon. Is *E. multicaulis* Smith.—A. Bennett. Possibly a mixture.—H.S.T.

Carex contigua × *divulsa*? [679]. Root pieces and flowers from Wimbotsham, W. Norfolk, June 12, 1926: fruiting culms Aug. 3, 1928: fruiting culms Hort. Hitchin, ex Wimbotsham, Aug. 16, 1928.—J. E. Little. The characters which lead me to suggest the above name are:—(1) *C. contigua* points. An erect moderately stout culm with a spike about 6 cm. long. Spikelets having when young *brown* glumes with green midribs. Utricles about 5.5 mm. long, at maturity turning chestnut brown, but somewhat paler than in *C. contigua*, and *gradually* narrowed into a *relatively long beak* of about 1.75 mm. (2) *C. divulsa* points. The lower spikelets are often separated by twice their own length. At maturity the utricles spread only slightly, and are *gradually* narrowed at the base. The nut is about 3 mm. long and 1.5 mm. broad, i.e. very definitely longer than broad. I sent this in 1926 to Mr. Salmon who has also been growing it.—J. E. Little. This looks to me like ordinary *divulsa*, but I do not profess to a critical knowledge of Carex. —A. H. Wolley-Dod. Though my specimens lean towards *divulsa*, I also see certain aspects of *contigua*. Both being variable and allied species, it is extremely difficult to determine this gathering. If Mr. Salmon still has the plant growing will he report on it next year?—H. S. Thompson.

Carex canescens Lightf. [Ref. Z 20]. Slopes of Mickle Fell, N.W. Yorks., July 6, 1928.—J. E. Lousley.

Carex punctata Gaud. Near Poole, Dorset, July 19, 1928. —L. B. Hall. Good specimens of the species.—A. Bennett.

Leersia oryzoides Sw. With nice exserted panicles. Amberley Wild Brooks, W. Sussex, Aug. 19, 1928.—E. C. Wallace. Specimens are not always so well flowered as this in August. Apparently the species does not extend beyond Surrey, S. Hants. and W. Sussex.—J. Fraser. And in Dorset by E. F. Linton.—H.S.T. It is now usually written *Oryza oryzoides*.—W. O. Howarth.

Phlaris minor Retz. Casual, near Gas Works, Hitchin, Herts., July 28, 1926.—J. E. Little. Yes.—W. O. Howarth.

Alopecurus bulbosus Gouan. Near Chichester, W. Sussex, Aug. 14, 1917.—L. B. Hall. He also sent it from near Wareham, Dorset. Correct.—A. Bennett. Yes.—W. O. Howarth. I agree.—J. Fraser.

Phleum nodosum L. Castle Acre, Norfolk, June 28, 1928.—R. J. Burdon. I believe correct.—A. Bennett. .Should be written *P. pratense* L. var. *nodosum* (Linn.).—W. O. Howarth.

Catabrosa aquatica Beauv. Pond by the Fleet, Wyke Regis, Dorset, June 2, 1928.—E. C. Wallace.

Apera Spica-venti Beauv. Wallington, W. Norfolk, Aug. 2, 1928.—J. E. Little. Yes.—W. O. Howarth.

Deschampsia setacea Richter. Near Lytchett Minster, and near Wareham, Dorset, July 19, 1928.—L. B. Hall. Correct.—A. Bennett. The " London Catalogue " attributes the name to Richter, as also Ascherson and Graebner, but Druce's " List " has (Hudson) Hackel.—W. O. Howarth. Rightly named. While near *D. flexuosa*, it can easily be separated by the linear-lanceolate, attenuate ligule, and by the branches of the panicle not being flexuous. The leaves vary greatly in being finely setaceous or coarse from the same locality. Syns. *D. discolor* Roem. and Schult., *Aira setacea* Huds., *A. uliginosa* Weihe.—J. Fraser.

Trisetum flavescens Beauv. var. *variegatum* Mert. and Koch. [Ref. 1281]. With the type in Grays Lane, Ashtead, Surrey, July 4, 1928.—E. C. Wallace and M. Bell. Yes.—W. O. Howarth. Is not this merely a colour variation of type? The variety is a mountain form with dark violet glumes.—I. M. Roper.

Trisetum flavescens Beauv. var. *variegatum* Mert. and Koch. Near Chorley Wood Station, Herts., v.c. 20, July 2, 1927.—W. R. Sherrin. Rightly named. In the variety the glumes are more or less shaded with dark violet or purple. Possibly the darkest forms occur in the mountains.—J. Fraser.

Arrhenatherum tuberosum Gilib. [1287]. Gravelly field by White Downs, Surrey, July 31, 1927.—E. C. Wallace. Yes.—W. O. Howarth.

Koeleria gracilis Pers. South Harting Down, Sussex; growing with var. *britannica* Domin, but in greater quantity;

June, 1928.—W. Biddiscombe. Yes.—W. O. Howarth. On Carboniferous Limestone the two often grow together, and sometimes with intermediate forms which are difficult to differentiate.—H. S. Thompson.

Koeleria———. [1282]. Banstead Downs, Surrey, June 16, 1927.—E. C. Wallace. *K. britannica* Domin?—A. Bennett. *K. gracilis* Pers. var. *britannica* Domin.—A. E. Wade. I should place under *gracilis*. It seems to fit under var. *pallida* as given by Ascherson and Graebner.—W. O. Howarth.

Poa nemoralis L. var.———. Chorley Wood, Herts., July 2, 1927.—W. R. Sherrin. Is var. *vulgaris* Gaud.—W. O. Howarth.

Poa compressa L. Castle Acre, Norfolk, June 28, 1928.—R. J. Burdon. I agree.—W. O. Howarth.

Poa pratensis L. var.———. Meadow, Pyrford, Surrey, June, 1928. Appears interesting from the glaucous blue tint of the panicle, and also from the glumes being rather broader and more compressed than in the type.—W. Biddiscombe. *P. trivialis* L.—I. M. Roper. This must be the hybrid *P. pratensis* × *trivialis*, some specimens being nearer to one parent, others to the other.—W. O. Howarth.

Glyceria declinata Bréb. Wimbledon Common, Surrey, Sept., 1922.—W. R. Sherrin. Yes.—W. O. Howarth.

Glyceria declinata Bréb. Horsell Common, Woking, Surrey, June 16, 1928. Culms erect after the first inch or so. Plants all small.—I. A. Williams. Yes.—W. O. Howarth.

Festuca ambigua Le Gall. Thetford Heath, W. Suffolk, July 19, 1879.—Coll. and Comm. A. Bennett.

Festuca———. Chorley Wood, Herts., July 28, 1928.—W. R. Sherrin. Is *F. commutata* Gaud. (*F. fallax* Thuill.).—W. O. Howarth.

Festuca arenaria Fr. Dunes, Great Yarmouth, July 7, 1928.—R. J. Burdon. Is *F. rubra* var. *arenaria* (Osb.) Fr.—W. O. Howarth.

Festuca pratensis × *Lolium perenne* = *F. loliacea* Curt. This is I presume the *Festuca loliacea* Huds. and *Bucetum loliaceum* Parnell. Pasture near Pyrford, Surrey, June, 1928.

—W. Biddiscombe. *Festuca loliacea* Huds. Yes.—W. O. Howarth. The right plant, but the name was written *Festuca loliacea* × Huds. Fl. Angl. I., 38. In the London Cat. XI, the name is written *F. pratensis* × *Lolium perenne* (*loliacea* Curt.). This is somewhat cumbersome, but gives a good idea of the origin of the plant, which is scattered in widely separated colonies, as hybrids usually are.—J. Fraser.

Bromus secalinus L. var. *velutinus* (Schrad.). In a field of rye, behind the Half Moon Inn, Thursley, Surrey, June 27, 1927. Is not this variety much commoner than the type? —I. A. Williams. I consider this to be *Bromus hordeaceus* L. = *B. mollis* L.—A. O. Howarth. It is interesting to note that "Roadside, near Thursley, I. A. Williams, 1928," is among the various Surrey stations where Mr. Williams' new species, *B. britannicus*, has been found. (See *Journ. Bot.*, 1929, 65.)—H. S. Thompson.

Brachypodium sylvaticum [2825] var. *glabrescens* Syme. Near Westhumble, Surrey, Aug. 15, 1925.—C. E. Britton. Comm. S. London Bot. Inst. The variety is rightly enough named, but different authorities have been quoted both for it and the type. The glumes have lost their hairs, but the nerves are more or less scabrid near the apex of the glumes, just where the nerves become prominent.—J. Fraser.

Brachypodium sylvaticum R. and S. var. *glabrescens* Syme. [Ref. 1283]. Lane-side near Burrows Cross, Shere, Surrey, July 31, 1927. It occurs in several places in this part of Surrey.—E. C. Wallace. Yes.—W. O. Howarth. The spikelets are finely but plentifully hairy, so it clearly cannot come under the *glabrescens* of Syme. I think it must be a rare state. Syme says it occurs in Fife. I have examples from Orkney. Syme's variety is antedated by Cosson and Germain's var. *glabrescens*, evidently the same thing.—C. E. Salmon.

Agropyron pungens Roem. and Schult. Bank of Avon, Sea Mills, Bristol, W. Gloster., v.c. 34, July 26, 1928.—Ida M. Roper. Correct.—A. Bennett. My specimen is right as to the species, but the flowering glume has a short but distinct awn, which I presume makes it the variety *littorale* (Reichb.) and *Triticum littorale* Host.—J. Fraser. I should place this under *A. acutum* R. and S., that is, under *Triticum*

acutum DC. in the narrowest sense. Ascherson and Graebner give *T. pungens* Pers. = *A. pungens* R. and S. as *T. repens* × *junceum* and *T. acutum* DC. under this. Babington made the last named a distinct species.—W. O. Howarth.

Agropyron pungens R. and S. var. *aristatum* Hackel. (*Triticum pungens* Pers. var. *aristatum* Warren. *T. littorale* Host. p.p.). Bank of the tidal Avon below Bristol, W. Glos., July, 1928.—Jas. W. White. *A. pungens* R. and S. var. *aristatum* Hackel. A comparison between this form and the above shows the great variability existing, which is not to be wondered at. Ascherson and Graebner remark on this: "We find forms with narrow and broad leaves, others with vigorous or scarcely vigorous culms, with large or small spikelets, etc."—W. O. Howarth.

Blechnum Spicant With. var. *ramosum* Kim. Glencar Waterfall, Co. Leitrim, Sept. 4, 1928.—I. M. Roper. In my specimen of this gathering the "throw-back" to dichotomy is not so perfect as in the *P. Scolopendrium*. The two gatherings form a useful skeleton "series".—J. E. Lousley.

Phyllitis Scolopendrium Newm. var. *ramuscula* Lowe. Blaise Castle Woods, Bristol, W. Glos., Nov. 22, 1927.—Ida M. Roper. This is one of Moore's Series *multifidum* of varieties of which Series alone there are about 40 named forms. The aggregate variety is *Scolopendrium vulgare* var. *multifidum* Gray, and is on record from Frenchay, near Bristol, where it was collected by T. H. Thomas and is figured in a somewhat more multifid form in Moore's *Nature Printed British Ferns*. A fern fancier might give a closer varietal name than the aggregate. Moore does not mention var. *ramuscula* Lowe.—A. H. Wolley-Dod. A most interesting plant. The apex exhibits excellent examples of dichotomy—a primitive character which is usually masked in Ferns by one of the branches becoming stronger than the other. Bower, in *The Ferns*, Vol. I, 1923, p. 332, endorses the idea that such aberrations should properly rank as "individual sports", and also gives other valuable notes on "crested varieties". As Lowe recognised over 400 "varieties" of this one species, almost all of which are undistinguished sports and reversions, the futility of keeping up such varietal names is obvious.—J. E. Lousley.

Isoetes echinospora Durieu. East Dorset, 1928. C. E. Salmon and L. B. Hall. New record for England. See *Journal of Botany*, 1928, p. 272.—L. B. Hall. Although Mr. Hall was not actually the first to find this plant in Dorset, we congratulate him upon his several recent botanical discoveries.—H.S.T.

CONIFERÆ.

On going to press the Secretary has received from Prof. A. Henry, with the request that it be noticed in the Report, an excellent and well illustrated article of 72 pp. ($10\frac{1}{2}'' \times 7\frac{1}{4}''$) and seven plates entitled *Coniferæ : Keys to the Genera and Species, with Economic Notes*. The work is by H. M. FitzPatrick, B.Agr.Sc., a past student of Prof. Henry, to whom is made full acknowledgement for indebtedness. It forms No. 19, Vol. 19, N.S. of the Scientific Proceedings of the Royal Dublin Society, April, 1929. The London publishers are Williams and Norgate, and the price 8/-.

The object of the author was the compilation of "a comprehensive series of descriptions of the species of the Coniferæ, based on the morphology of the foliage, arranged in the form of an artificial key. . . . Living trees must be identified by means of peculiarities of the foliage alone in youth, and later in life also if they are not bearing cones. Workers in palæobotany recognise fossil remains of plants in many cases by the impressions of leaves and twigs, and for such work keys are essential." It is pointed out that in the Abietineae the twigs become woody in the second year of growth, and this distinguishes this important timber-producing tribe from all other Conifers except Taxodium.

The classification first divides the five families into forty-seven genera, with the number of species and geographical distribution of each genus. Then follows a useful and up-to-date Key to the Genera. The main body of the work is devoted to an excellent Description of Genera and Species, a few lines being given to over 300 species out of a total of 490 living species.

The work should be of great use to botanists, geologists, foresters and nurserymen, and was much needed in this country. The plates, with 95 figures of twigs and leaves, are admirably clear.

H. S. T.

NOTE ON LAST REPORT, p. 445.

Salix fragilis × *cinerea*? Chertsey Bridge, W. Biddiscombe.—Mr. Pearsall agrees with Mr. Little that the leaf-piece sent to the latter is *S. fragilis*, and that it does not agree with Mr. Fraser's determination. Mr. Pearsall has asked the collector if he can get catkins and leaves again. Mr. Biddiscombe replies that he is certain both leaves and flowers were from the same tree; that he has visited the said Willow and finds it is cut down.

SUBSCRIPTIONS, 1928.

	s.	d.
Barton, W. C.	10	6
Bergens Museum	10	6
Bickham, S. H.	10	6
Biddiscombe, W.	10	6
Bishop, E. B.	10	6
Botanical Dept., Brit. Museum	10	6
Botany School, Cambridge	10	6
Burdon, Preb. R. J.	10	6
Carr, Prof. J. W.	10	6
Catcheside, D. G.	10	6
Comber, J.	10	6
Cooke, R. B.	10	6
Crosfield, A. J.	10	6
Darbishire, Prof. O. V.	10	6
Druce, F.	10	6
Evans, A. H.	10	6
Ewing, Mrs.	10	6
Fraser, J.	10	6
Geldart, Miss A. M.	10	6
Goode, G.	10	6
Gray, Dr. H.	10	6
Gregor, Rev. A. G.	10	6
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Hanbury, F. J.	10	6
Howarth, W. O.	10	6
Lacaita, C. C.	10	6
Little, J. E.	10	6
Lousley, J. E.	10	6
Martin, Rev. W. K.	10	6
National Museum of Wales	10	6
Nat. Museum, Dublin	10	6
O'Loughlin, J. L.	10	6
Pearsall, W. H.	10	6
Pugsley, H. W.	10	6
Ransom, F.	10	6
Rechinger, Dr. K.	10	6
Riksmuseets Bot. Dept., Stockholm	10	6
Rilstone, F.	10	6
Roper, Miss I. M.	10	6
Salmon, C. E.	10	6
Sheldon, F. J.	10	6
Simpson, N. D.	10	6
Skene, Dr. M.	10	6
Smith, Prof. W. W.	10	6
S. London Bot. Inst.	10	6
Thomas, F	10	6
Thompson, H. S.	10	6
Wallace, E. C.	10	6
White, J. W.	10	6
Williams, I. A.	10	6
Wolley-Dod, Lt.-Col., A. H.	10	6
	£26	15	6

TREASURER'S BALANCE SHEET, 1928.

Receipts.

	£	s.	d.
Balance in hand, December 31st, 1927 ...	11	13	10
Subscriptions for 1928	26	15	6
Reports sold		7	0
	£38	16	4

Expenditure.

	£	s.	d.	£	s.	d.
Printing—						
Forty-fourth Annual Report (200 copies) 50 pages and wrapper	28	0	0			
Card (and postage)		11	0			
				28	11	0
Working Expenses—						
Distributor	2	7	4			
Secretary: Envelopes and postage of Reports ...		14	8			
,, Ordinary postage ...		6	0			
				3	8	0
Balance in hand, Dec. 31st, 1928				6	17	4
				£38	16	4

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Hon. Treasurer.

31*st December*, 1928.

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